SCREENING SITE INSPECTION REPORT
FOR
FLEMMING'S SERVICE STATION
MARENGO, ILLINOIS
U.S. EPA ID: ILD981537780
SS ID: NONE
TDD: F05-8808-014
PAN: FIL0664SB

JUNE 11, 1991

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International Specialists in the Environment

SIGNATURE PAGE
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1. INTRODUCTION

Ecology and Environment, Inc., Field Investigation Team (FIT) was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct a screening site inspection (SSI) of the Flemming's Service Station (Flemming's) site under contract number 68-01-7347.

The site was initially discovered on February 4, 1977, when two representatives from the Illinois Environmental Protection Agency (IEPA) stopped at a Deep Rock gas station located on U.S. Route 20, east of Marengo, Illinois, and questioned the attendant about three trailers containing drums that were observed at the rear of the site.

FIT conducted the SSI at the Flemming's site because its location matches that described by the IEPA representatives for the Deep Rock gas station (McCarrin 1977; Bradley 1990). The Flemming's site is also the only gas station present in that general area.

The site was evaluated in the form of a preliminary assessment (PA) that was submitted to U.S. EPA. The PA was prepared by Gary Reside of IEPA and is dated December 6, 1987 (U.S. EPA 1987).

FIT prepared an SSI work plan for the Flemming's site under technical directive document (TDD) F05-8808-014, issued on August 11, 1988. The SSI work plan was approved by U.S. EPA on January 16, 1990. The SSI of the Flemming's site was conducted on March 27 and 28, 1990, under amended TDD F05-8808-014, issued on February 2, 1990.

The FIT SSI included an interview with site representatives, a reconnaissance inspection of the site, and the collection of six soil samples and four residential well samples.

The purposes of an SSI have been stated by U.S. EPA in a directive outlining Pre-Remedial Program strategies. The directive states:

> All sites will receive a screening SI to 1) collect additional data beyond the PA to enable a more refined preliminary HRS [Hazard Ranking System] score, 2) establish priorities among sites most likely to qualify for the NPL [National Priorities List], and 3) identify the most critical data requirements for the listing SI step. A screening SI will not have rigorous data quality objectives (DQOs). Based on the refined preliminary HRS score and other technical judgement factors, the site will then either be designated as NFRAP [no further remedial action planned], or carried forward as an NPL listing candidate. A listing SI will not automatically be done on these sites, however. First, they will go through a management evaluation to determine whether they can be addressed by another authority such as RCRA [Resource Conservation and Recovery Act].... Sites that are designated NFRAP or deferred to other statutes are not candidates for a listing SI.
>
> The listing SI will address all the data requirements of the revised HRS using field screening and NPL level DQOs. It may also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for listing and that have not been deferred to another authority will receive a listing SI. (U.S. EPA 1988)

U.S. EPA Region V has also instructed FIT to identify sites during the SSI that may require removal action to remediate an immediate human health or environmental threat.

2. SITE BACKGROUND

2.1 INTRODUCTION

This section presents information obtained from SSI work plan preparation, the site representative interview, and a reconnaissance inspection of the site.

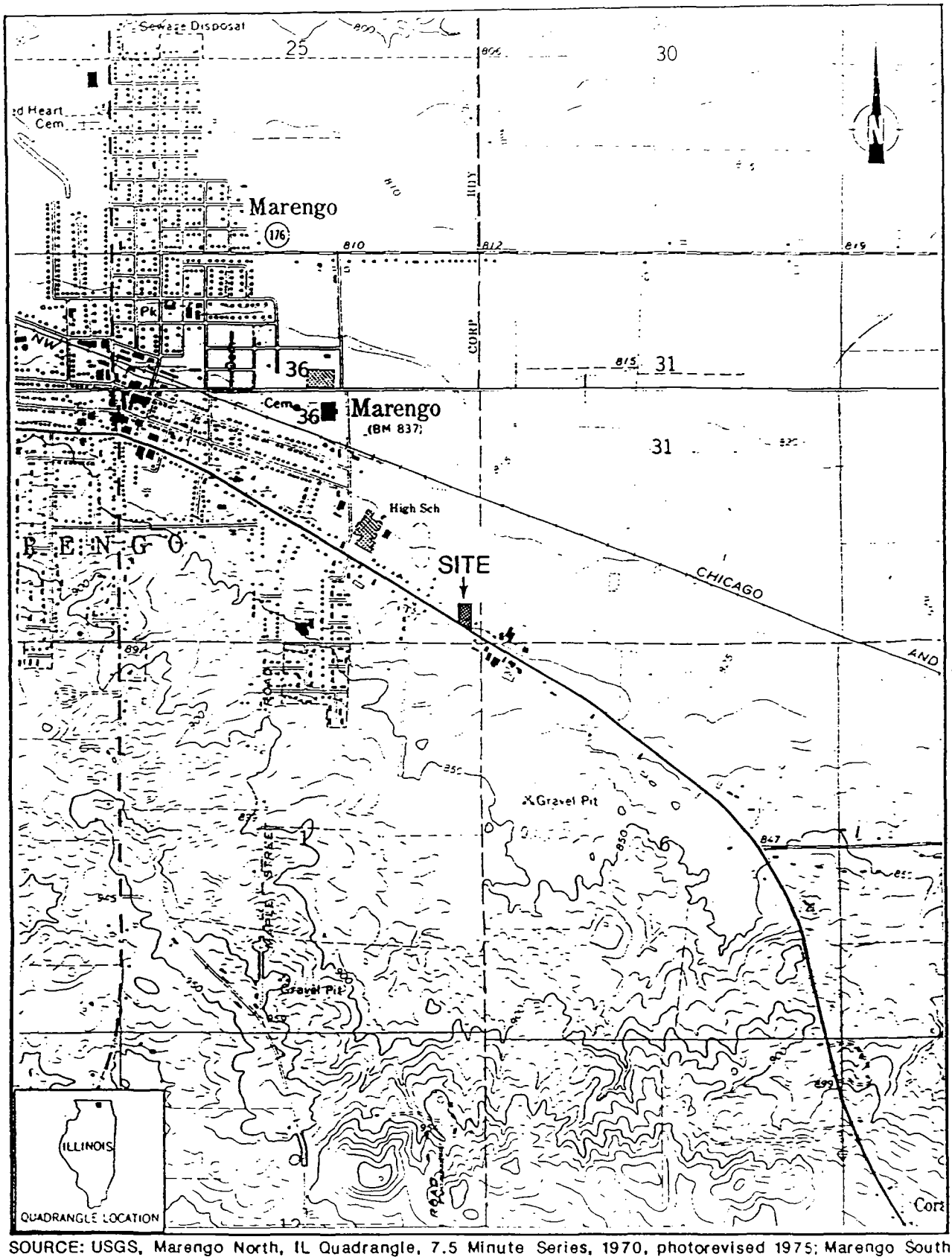
2.2 SITE DESCRIPTION

The Flemming's site is currently the location of an active construction company, Carmichael Construction Company. The site is approximately 1 acre in size and is located at 1080 East Grant Highway (U.S. Route 20) in McHenry County, Marengo, Illinois (SE1/4SE1/4SE1/4 sec. 36, T.44N., R.5E.) (see Figure 2-1 for site location).

A 4-mile radius map of the Flemming's site is provided in Appendix A.

2.3 SITE HISTORY

The Flemming's site at 1080 East Grant Highway is currently owned by Jim Carmichael, who owns and operates Carmichael Construction on-site. Additionally, a small injection molding polishing company named Excel is currently located in a leased room in the one on-site building (Carmichael 1990). Carmichael bought the site in May 1987 from Ron Flemming, who owned and operated a Mobil gas station on-site from February 1980 to May 1987. From April 1976 to February 1980, the site was used as a gas station, owned and operated by Chuck Griffin (Bradley 1990).



SOURCE: USGS, Marengo North, IL Quadrangle, 7.5 Minute Series, 1970, photorevised 1975; Marengo South, IL Quadrangle, 7.5 Minute Series, 1968, photorevised 1975.

SCALE

0 ½ 1 MILE

FIGURE 2-1 SITE LOCATION

During IEPA's 1977 visit to the Deep Rock gas station, additional information obtained from the attendant included the following.

- The owner of the gas station had allowed the trailers to be parked on his property (McCarrin 1977).

- The drums in the trailers were from the Bean Drum site, a site identified in the Comprehensive Environmental Response, Compensation, and Liability Information System as an illegal storage and transfer station that was used for hazardous waste from 1974 to 1977, located approximately 2 miles south of Marengo (U.S. EPA 1984).

Upon investigation, the IEPA representatives observed that most of the drums (exact number unknown) in the three trailers contained various acids and cyanide compounds and showed evidence of leakage. Evidence that at least one additional trailer had been recently removed from the site was also observed (McCarrin 1977).

The construction company that Carmichael currently operates on-site does not generate or use hazardous waste. The building on-site is used as an office for the company, as well as storage space for small construction equipment. Excel, the company that operates from a small leased room in the back of the building, does not generate or use hazardous waste in its operations. Carmichael's construction company employs seven persons, which includes clerical staff; Excel employs two persons (Carmichael 1990).

Carmichael removed three empty underground gasoline tanks (date unknown) that had been used in past site operations, and stored them in the northern portion of the site. Carmichael stated that this action was self-initiated. The tanks were empty and they each had a capacity of approximately 5,000 gallons (Carmichael 1990).

At the time of the SSI, there were no regulatory or enforcement actions pending against the site.

3. SCREENING SITE INSPECTION PROCEDURES AND FIELD OBSERVATIONS

3.1 INTRODUCTION

This section outlines procedures and observations of the SSI of the Flemming's site. Individual subsections address the site representative interview, reconnaissance inspection, and sampling procedures. Rationales for specific FIT activities are also provided. The SSI was conducted in accordance with the U.S. EPA-approved work plan, with the exception that only three of the proposed five on-site subsurface soil samples were collected; the two remaining on-site soil samples were surface samples.

FIT decided to collected surface soil samples to assess the possibility of contaminant migration through windblown particulates. Additionally, the work plan proposed that all subsurface samples be collected using a power auger. Of the three samples that were collected at depth, only two were collected with a power auger.

The U.S. EPA Potential Hazardous Waste Site Inspection Report (Form 2070-13) for the Flemming's site is provided in Appendix B.

3.2 SITE REPRESENTATIVE INTERVIEW

Tim Mayers, FIT team leader, conducted an interview with Jim Carmichael, present owner and operator, and Ron Flemming, past owner and operator, of the Flemming's site. The interview took place on March 27, 1990, at approximately 8:15 a.m. in the on-site office of Carmichael Construction. Deneen Benford, FIT team member, was also present during the interview. The interview was conducted to gather information that would aid FIT in conducting SSI activities.

3.3 RECONNAISSANCE INSPECTION

Following the site representative interview, FIT conducted a reconnaissance inspection of the Flemming's site and surrounding area in accordance with Ecology and Environment, Inc. (E & E), health and safety guidelines. The reconnaissance inspection began at 9:00 a.m. on March 27, 1990, and included a walk-through of the site to determine appropriate health and safety requirements for conducting on-site activities and to make observations to aid in characterizing the site. FIT also determined sampling locations during the reconnaissance inspection. FIT was not accompanied by site representatives during the reconnaissance inspection.

Reconnaissance Inspection Observations. The Flemming's site is located on the southeast end of Marengo, Illinois. The site is located in an area characterized by residential homes and commercial buildings. Agriculture is also present in the area of the site. An agricultural field serves as the site's northeast border (see Figure 3-1 for site features). Fencing was observed along this boundary. The northwest border of the site was a line of deciduous trees with an open lot west of them. U.S. Route 20, locally known as Grant Highway, serves as the site's southwest border. A restaurant is located on the property southeast of the site. Deciduous trees line the border between the site and this property.

Entrance to the site is gained simply by driving off U.S. Route 20 onto gravel-covered areas on either side of a grass-covered, landscaped berm that leads from U.S. Route 20 to the on-site building (refer to page 8 of Appendix C for photograph). The building is occupied by Carmichael Construction and Excel. A roll-off box was located northwest of the berm and two employees' automobiles were located to the southeast.

Along the northwest border of the site, FIT observed one end of a culvert. Beneath the end of the culvert was a depression filled with standing water that was even with the bottom lip of the culvert. It appeared that the other end of the culvert was located just south of U.S. Route 20, and that water flowed from north to south through the culvert.

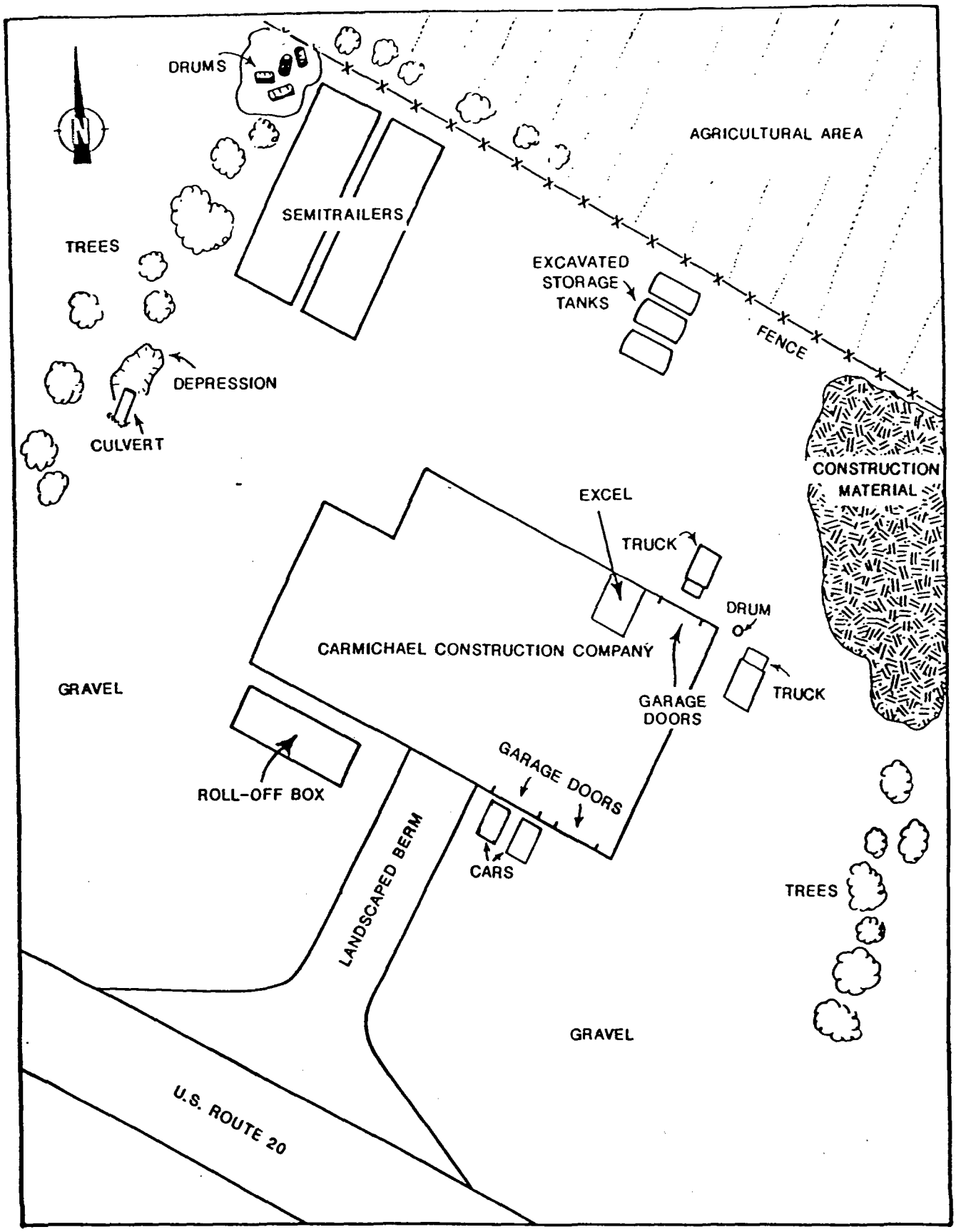


FIGURE 3-1 SITE FEATURES

In the northwest corner of the site were four empty, rusted 55-gallon drums. Located approximately 15 feet southeast of these drums were two semitrailers that are used for the storage of construction equipment.

Located in the northern portion of the site, approximately 40 feet east-southeast of these two semitrailers, FIT observed three gasoline tanks that, according to Carmichael, had been excavated from beneath the ground surface. FIT estimated the volume of each of these tanks to be approximately 5,000 gallons. FIT did not observe any obvious areas where these tanks may have been formerly located.

The northeast corner of the site was covered by general construction material and equipment. While the extreme northern portion of the site had some grass cover and the berm south of the building was grassed, the majority of the site was covered with hard packed gravel.

Photographs of the Flemming's site are provided in Appendix C.

3.4 SAMPLING PROCEDURES

Samples were collected by FIT at locations selected during the reconnaissance inspection to determine whether U.S. EPA Target Compound List (TCL) compounds or Target Analyte List (TAL) analytes were present at the site. The TCL and TAL are included with corresponding quantitation/detection limits in Appendix D.

On March 27, 1990, FIT collected six soil samples, including one off-site potential background sample. Four of the six soil samples were subsurface samples. On March 28, 1990, FIT collected four residential well samples, including one duplicate well sample, and one field blank. Portions of on-site samples collected by FIT were offered to and declined by site representatives.

Soil Sampling Procedures. Soil sample S1 was a subsurface grab sample collected at a depth of 1 foot from the base of four empty, rusted 55-gallon drums. These drums were located in the far northwest corner of the site (see Figure 3-2 for on-site soil sampling locations). Soil sample S1 was collected to determine whether any materials that may have been inside the drums had leaked out onto the soil.

Soil samples S2, S3, and S4 were all grab samples collected from the northern portion of the site to determine whether the drums that

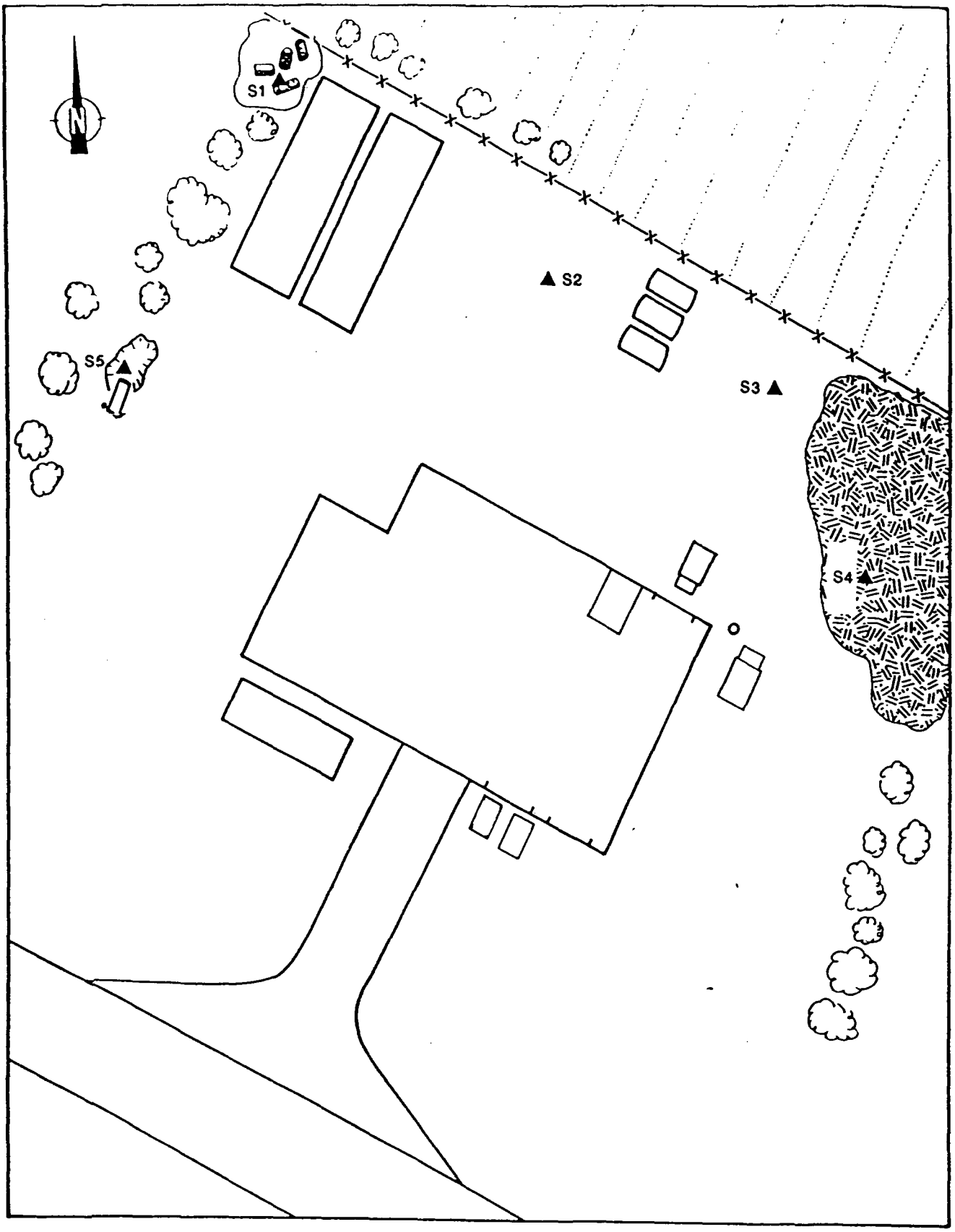


FIGURE 3-2 ON-SITE SOIL SAMPLING LOCATIONS

were stored in the trailers that had allegedly been stored in this area had leaked. Subsurface soil sample S2 was collected at a depth of 2 1/2 feet approximately 15 feet west of the three abandoned storage tanks. Surface soil sample S3 was collected approximately 20 feet east of the abandoned storage tanks. Sample S3 was collected to assess the potential for contamination by windblown particulates. Subsurface soil sample S4 was collected at a depth of 3 feet, approximately 25 feet southeast of soil sample S3, within the construction material storage area.

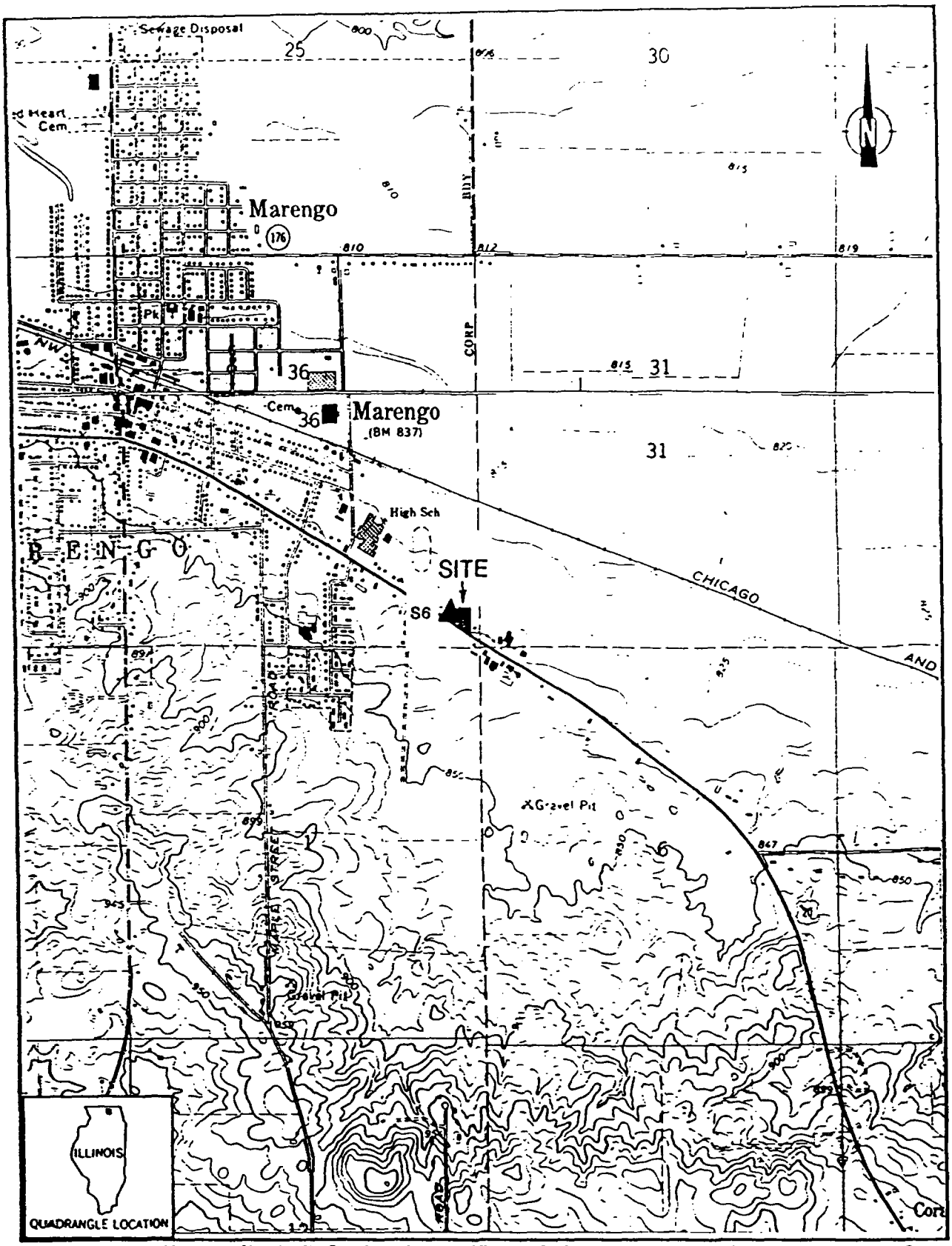
Soil sample S5 was a surface grab sample collected in the depression located beneath the culvert on the northwestern side of the site.

Soil sample S6 was a surface grab sample, designated as the potential background sample (see Figure 3-3 for off-site soil sampling location). The sample was collected in the vacant lot adjacent to the northwest side of the site, approximately 25 feet northwest of sampling location S5. Sampling location S6 was selected because the area appeared to be in a relatively undisturbed state.

All surface soil samples were collected using either a garden trowel, a shovel, or a combination of the two. Subsurface soil sample S1 was collected with a shovel. Subsurface soil samples S2 and S4 were collected using a power auger to reach the desired depth. The sample material was then lifted from the hole to the ground surface by means of a bucket auger. During the collection of all soil samples, sample material was transferred from the ground into stainless steel bowls and from the bowls into sample bottles by using garden trowels (E & E 1987).

Standard E & E decontamination procedures were adhered to during the collection of all soil samples. The procedures included the scrubbing of all equipment (e.g., power-auger flights, bucket auger, shovel, garden trowels, and bowls) with a solution of detergent (Alconox) and distilled water, and triple-rinsing the equipment with distilled water before the collection of each sample (E & E 1987). All samples were packaged and shipped in accordance with U.S. EPA-required procedures.

As directed by U.S. EPA, all soil samples were analyzed using the U.S. EPA Contract Laboratory Program (CLP) for TCL compounds and TAL analytes.



SOURCE: USGS, Marengo North, IL Quadrangle, 7.5 Minute Series, 1970, photorevised 1975; Marengo South, IL Quadrangle, 7.5 Minute Series, 1968, photorevised 1975.

SCALE

0 ½ 1 MILE

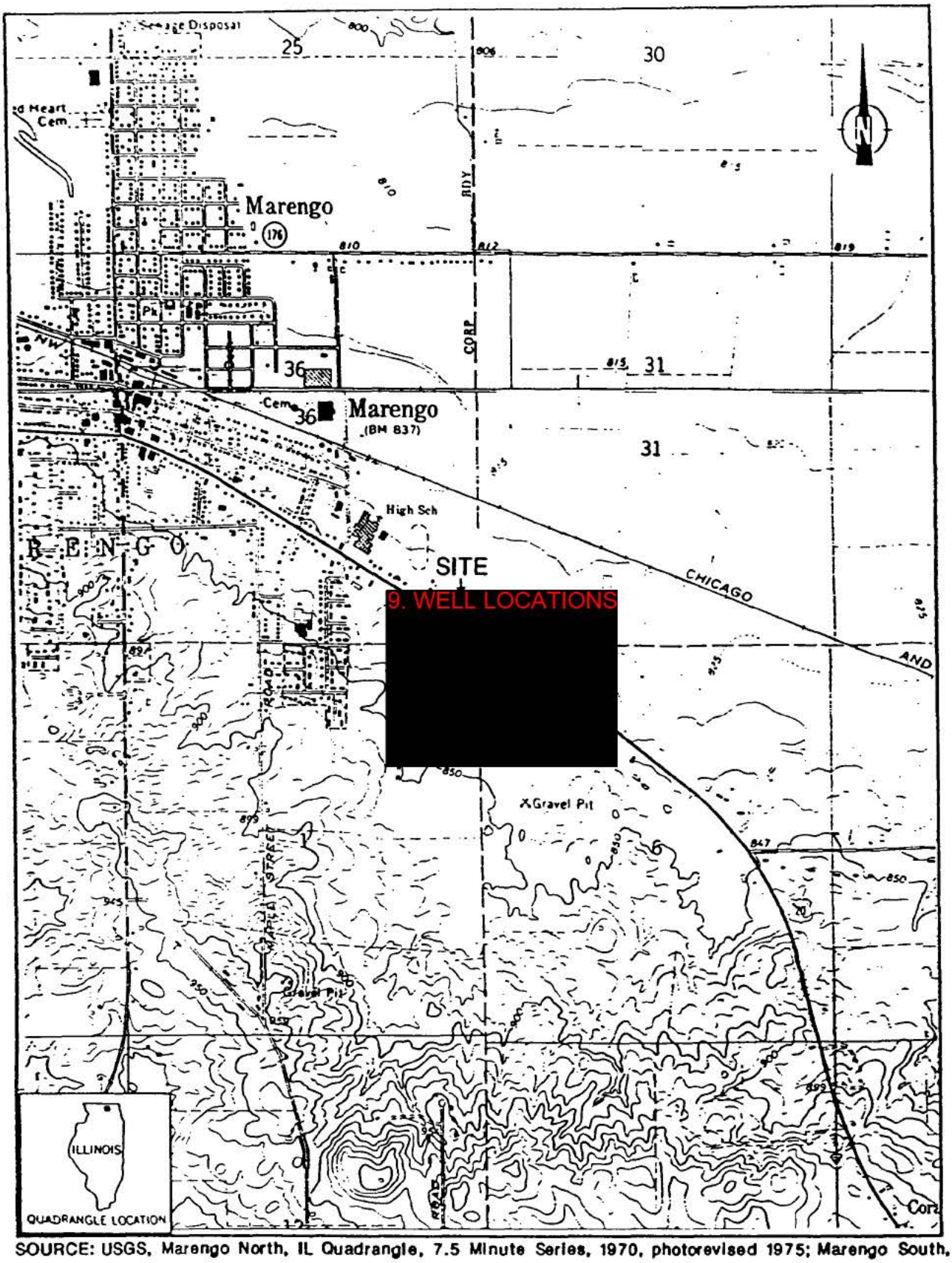
FIGURE 3-3 OFF-SITE SOIL SAMPLING LOCATION

Residential Well Sampling Procedures. Residential well samples (designated RW1 through RW4) were collected to determine whether TCL compounds and/or TAL analytes had migrated from the site to groundwater in the area of the site. The residential well sampling locations were selected because of their proximity to the site and the availability of private wells for sampling.

Sample RW1 was collected from a residence [redacted] Sample RW2 was collected from a well [redacted] Sample RW3 was collected from a residence [redacted] Sample RW4 was collected from an [redacted] This well is used for drinking. Sampling location RW1 was selected to be a potential background well because it is likely that groundwater in the area flows [redacted] Kishwaukee River, and well RW1 [redacted].

All residential well samples were obtained from outlets that bypassed water treatment systems and storage tanks. Water was allowed to discharge from the outlets for 15 minutes before samples were collected to ensure that the sample sources had been purged of standing water (E & E 1987). In accordance with U.S. EPA quality assurance/quality control requirements, a duplicate residential well sample and a field blank sample were collected. The field blank sample was prepared from distilled water. The duplicate sample was collected at location RW2 (see Table 3-1 for addresses of residential well sampling locations).

As directed by U.S. EPA, all residential well samples were analyzed using the U.S. EPA CLP for TCL compounds and for TAL analytes.



SOURCE: USGS, Marengo North, IL Quadrangle, 7.5 Minute Series, 1970, photorevised 1975; Marengo South, IL Quadrangle, 7.5 Minute Series, 1968, photorevised 1975.

SCALE
0 ½ 1 MILE

FIGURE 3-4 RESIDENTIAL WELL SAMPLING LOCATIONS

Table 3-1

ADDRESSES OF RESIDENTIAL WELL
SAMPLING LOCATIONS

Sample	Address
RW1	9. WELL LOCATIONS [redacted]
RW2 (Duplicate)	
RW3	
RW4	

4. ANALYTICAL RESULTS

This section presents results of the chemical analysis of FIT-collected soil and residential well samples for TCL compounds and TAL analytes. All samples were analyzed for volatile organics, semivolatile organics, pesticides/polychlorinated biphenyls (PCBs), metals, and cyanides. Complete chemical analysis results of FIT-collected soil and residential well samples are provided in Tables 4-1 and 4-2.

Quantitation/detection limits used in the analysis of soil and residential well samples are provided in Appendix D.

The analytical data for the chemical analysis of soil and residential well samples collected for this SSI have been reviewed by U.S. EPA for compliance with terms of CLP, and the review has been approved by U.S. EPA. The analytical data have also been reviewed by FIT for validity and usability. Any additions, deletions, or changes to the data have been incorporated in the chemical analysis results tables presented in this section.

Table 4-1
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED SOIL SAMPLES

Sample Collection Information and Parameters	Sample Number S1	S2	S3	S4	S5	S6
Date	3/27/90	3/27/90	3/27/90	3/27/90	3/27/90	3/27/90
Time	0935	0955	1015	1020	1050	1130
CLP Organic Traffic Report Number	EGR29	EGR30	EGR31	EGR32	EGR33	EGR34
CLP Inorganic Traffic Report Number	MEEB11	MEEB12	MEEB13	MEEB14	MEEB15	MEEB16
Compound Detected (values in µg/kg)						
Volatile Organics						
2-butanone (MEK)	9J	8J	—	—	9J	3J
toluene	4J	—	—	—	—	11J
Semivolatile Organics						
benzoic acid	84J	39J	43J	72J	—	95J
fluoranthene	49J	—	58J	—	—	—
pyrene	—	—	49J	—	—	—
chrysene	—	—	41J	—	—	—
bis(2-ethylhexyl)phthalate	61J	—	—	—	23,000	—
Pesticides/PCBs						
Heptachlor epoxide	7.6J	—	—	—	—	—
Dieldrin	11J	—	5.3J	50	49	—
4,4'-DDE	15J	—	—	—	24	—
4,4'-DDD	5.7J	—	—	—	59	—
Endosulfan sulfate	—	—	13J	—	—	—
4,4'-DDT	30J	—	20	—	96	—
Analyte Detected (values in mg/kg)						
aluminum	10,300	3,650	6,640	5,020	6,910	415
arsenic	32.5JN	1.8JNB	2.5JN	1.9JNB	3.3JN	0.34JNB

Table 4-1 (Cont.)

Sample Collection Information and Parameters	Sample Number S1	S2	S3	S4	S5	S6
barium	678JN	25.2JNB	71.6JN	41.3JNB	73.9JN	4.7JNB
beryllium	0.46B	0.32B	0.44B	0.32B	0.46B	—
cadmium	1.7	—	0.74B	1.1	—	—
calcium	9,250	48,600	30,000	32,500	25,800	13,900
chromium	21.2	17.7	15.3	13.2	16	—
cobalt	7.1B	2.7B	81.5	3.7B	8.0B	57.4
copper	37.1	13.3	32.4	17.4	24.9	11.8
iron	17,200	6,930	11,900	12,000	12,800	1,460
lead	300JN	28.7JN	95.8JN	19.2	147JN	4.9
magnesium	4,760	27,900	16,300	18,700	14,900	7,120
manganese	668	173	366	369	419	23.7
nickel	15.9	6.4B	60.4	8.7B	14.9	43.1
potassium	1,320	435B	717B	653B	851B	119B
sodium	—	—	—	—	780B	—
vanadium	30	12.4	21.2	17	22.8	0.87B
zinc	490	47	59.3	34.1	261	7.8

— Not detected.

Table 4-1 (Cont.)

COMPOUND QUALIFIER	DEFINITION	INTERPRETATION
J	Indicates an estimated value.	Compound value may be semiquantitative.

ANALYTE QUALIFIERS	DEFINITION	INTERPRETATION
N	Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
J	Value is above CRDL and is an estimated value because of a QC protocol.	Value may be semiquantitative.

Table 4-2

RESULTS OF CHEMICAL ANALYSIS OF

FIT-COLLECTED RESIDENTIAL WELL SAMPLES

Sample Collection Information and Parameters	Sample Number RW1	RW2	Duplicate	RW3	RW4	Blank
Date	3/28/90	3/28/90	3/28/90	3/28/90	3/28/90	3/28/90
Time	1045	1040	1040	1115	1150	1015
CLP Organic Traffic Report Number	EJJ79	EJJ80	EJJ81	EJJ82	EJJ83	EAB97
CLP Inorganic Traffic Report Number	MEJK13	MEJK14	MEJK15	MEJK16	MEJK17	MEJA18
Temperature (°C)	13	13	13	13	13	8
Specific Conductivity (μmhos/cm)	520	820	520	460	430	4
pH	7.10	7.10	7.10	7.69	7.79	7.60
Compound Detected (values in μg/L)						
Volatile Organics						
methylene chloride	8	0.7J	—	—	—	1
toluene	—	—	—	—	—	1J
Semivolatile Organics						
benzyl alcohol	—	—	—	—	—	1J
butylbenzylphthalate	—	—	—	—	—	1J
Analyte Detected (values in μg/L)						
barium	104	37.5B	33.9B	38.1B	33.8	—
calcium	47,800	92,300	89,600	80,700	78,100	—
copper	—	21.4J	19.3J	42.4J	14.3J	37
iron	1,750	12.7JB	12.4JB	14.4JB	32.3JB	23.4B
lead	—	1.1JB	1.1JB	—	—	1.4B
magnesium	31,900	38,700	37,600	36,300	37,800	—
manganese	15.5	—	—	—	81.6	—

Table 4-2 (Cont.)

Sample Collection Information and Parameters	Sample Number RW1	RW2	Duplicate	RW3	RW4	Blank
potassium	778B	2,920	3,060	4,320	507B	--
sodium	23,900	9,860	9,510	5,940	3,560	247B
zinc	--	10.7JB	--	189	18.6JB	25.3

-- Not detected.

COMPOUND QUALIFIER	DEFINITION	INTERPRETATION
J	Indicates an estimated value.	Compound value may be semiquantitative.

ANALYTE QUALIFIERS	DEFINITION	INTERPRETATION
B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
J	Value is above CRDL and is an estimated value because of a QC protocol.	Value may be semiquantitative.

5. DISCUSSION OF MIGRATION PATHWAYS

5.1 INTRODUCTION

This section presents discussions of data and information pertaining to potential migration pathways and targets of TCL compounds and TAL analytes that are possibly attributable to the Flemming's site.

The five migration pathways of concern discussed are groundwater, surface water, air, fire and explosion, and direct contact.

5.2 GROUNDWATER

TCL compounds and TAL analytes were detected in groundwater within a 1/4-mile radius of the Flemming's site. The TCL compounds and TAL analytes detected were either common groundwater constituents or common laboratory artifacts. Therefore, the presence of these compounds and analytes in area groundwater is not attributable to the Flemming's site.

A potential does exist for TCL compounds and/or TAL analytes to migrate from the site into groundwater. This potential is based on the presence of TCL compounds and TAL analytes in on-site soil samples and the geology in the site area. TCL compounds detected in on-site soils include Dieldrin at 50 µg/kg, 4,4'-DDD at 59 µg/kg, and 4,4'-DDT at 96 µg/kg. Additionally, aluminum was detected at 10,300 mg/kg, chromium at 21.2 mg/kg, lead at 300JN mg/kg, and zinc at 490 mg/kg.

A review of logs of area wells and geological literature of the area surrounding the site indicates that groundwater is derived from unconsolidated glacial materials and sandstone bedrock.

The Quaternary glacial deposits consist of sand, gravel, and silty clay and range in thickness from 0 to over 200 feet. In some

areas the glacial deposits are overlain by a relatively thin (2- to 3-foot) layer of organic soil that is partly characterized by a moderately rapid permeability rate (Ray and Wascher 1965). Information obtained from logs of wells of the area surrounding the site and information from the Marengo Water Department indicate that most domestic wells draw from the glacial deposits at depths ranging from 10 to 150 feet (Bergquist 1989). The well logs also indicate that some private wells in the area draw from bedrock.

Underlying the glacial deposits are water-bearing Ordovician shale, sandstones, and dolomites. The Maquoketa Shale, St. Peter Sandstone, and Galena/Platteville dolomites are included in this sequence (Woller and Sanderson 1976). The shale unit overlies the sandstone and dolomites, but, according to area well logs, does not extend continuously throughout a 3-mile radius of the site. In the site area, these units can be found at depths averaging 200 feet.

Underlying the Ordovician water-bearing units are Cambrian sandstones, dolomites, and shales. These units also include known aquifers but were not found to be used within a 3-mile radius of the site. Because the Maquoketa Shale does not extend continuously over a 3-mile radius surrounding the Flemming's site, the water-bearing glacial deposits and bedrock units most likely are hydraulically connected, constituting a single aquifer of concern.

Groundwater flow in the area of the site is most likely to the north, toward the Kishwaukee River. Groundwater is the sole source for drinking water within a 3-mile radius of the Flemming's site. The city of Marengo uses three municipal wells that serve approximately 4,500 persons, all living within Marengo city boundaries. An unknown number of persons within the municipal water boundaries of Marengo use private wells instead of municipal water. All three municipal wells are approximately 85 feet deep and finished in sand and gravel. The water is blended prior to distribution (Bergquist 1989).

The town of Union, located approximately 2 1/2 miles east-southeast of the Flemming's site, uses one municipal well finished in the St. Peter Sandstone Formation at a depth of 700 feet. This well furnishes drinking water to approximately 650 persons living within Union.

The potential groundwater target population includes the 4,500 persons within Marengo, the 650 persons within Union, and the approximately 5,400 persons within the 3-mile radius of the site using private wells for a total target population of 10,550 persons.

The number of persons living within a 3-mile radius of the site using private wells was calculated by multiplying the number of homes within a 3-mile radius of the site counted on United States Geological Survey (USGS) topographic maps of the area (USGS 1968, 1968a, 1970, 1970a) by the McHenry County figure of 2.99 persons per household (U.S. Bureau of the Census 1982).

5.3 SURFACE WATER

In accordance with the U.S. EPA-approved work plan, surface water samples were not collected during the SSI of the Flemming's site. The nearest surface water body is the Kishwaukee River, located approximately 1 1/2 miles north of the site. Although TCL compounds and TAL analytes were detected on-site, no potential exists for the overland migration of these TCL compounds and TAL analytes because of the distance between the Kishwaukee River and the site.

5.4 AIR

A release of TCL compounds or TAL analytes to the air was not documented during the SSI of the Flemming's site. During the reconnaissance inspection, FIT site-entry instruments (OVA 128, colorimetric monitoring tubes for cyanide, oxygen meter, and explosimeter) did not detect levels above background concentrations at the site. In accordance with the U.S. EPA-approved work plan, further air monitoring was not conducted by FIT.

A potential does exist for TCL compounds and TAL analytes to migrate from the site via windblown particulates because TCL compounds and TAL analytes were detected in on-site surface soil samples, and portions of the site were observed to be unvegetated.

The population within a 4-mile radius of the site potentially affected by a release of TCL compounds and TAL analytes to the air is approximately 10,550 persons. This population was calculated by counting houses within a 4-mile radius of the site on USGS topographic

maps (USGS 1968, 1968a, 1970, 1970a) and multiplying this number by a persons-per-household value of 2.99 (U.S. Bureau of the Census 1982).

5.5 FIRE AND EXPLOSION

According to federal, state, and local file information reviewed by FIT, no documentation exists of an incident of fire or explosion at the site. According to FIT observations and site-entry equipment readings, no potential for fire or explosion existed at the site at the time of the SSI. However, a potential does exist for the three abandoned underground gasoline storage tanks, located on-site, to be accidentally ignited, e.g., by someone using a portable welder in the vicinity of the tanks.

The population within a 2-mile radius of the site potentially affected by a fire or explosion is approximately 4,500 persons. This population was calculated by counting houses within a 2-mile radius of the site on USGS topographic maps (USGS 1968, 1968a, 1970a) and multiplying this number by a persons-per-household value of 2.99 (U.S. Bureau of the Census 1982).

5.6 DIRECT CONTACT

According to federal, state, and local file information reviewed by FIT, observations made during the SSI, and the interview with the site representatives, no incidents of direct contact with TCL compounds or TAL analytes at the Flemming's site have been documented. However, a potential exists for the public to come into direct contact with TCL compounds and/or TAL analytes detected on-site because fencing does not completely surround the site, and the nearest private residence is located approximately 500 feet northwest of the site.

The population within a 1-mile radius of the site potentially affected through direct contact with TCL compounds and TAL analytes at the site is approximately 1,470 persons. This population was calculated by counting houses on USGS topographic maps within a 1-mile radius of the site (USGS 1968a, 1970a) and multiplying this number by a persons-per-household value of 2.99 (U.S. Bureau of the Census 1982).

6. REFERENCES

Bergquist, Vern, October 18, 1989, Superintendent, Marengo Water Department, telephone conversation, contacted by Tim Mayers of E & E.

Bradley, Richard, April 18, 1990, Marengo Township Tax Assessor, Marengo, Illinois, telephone conversation, contacted by Tim Mayers of E & E.

Carmichael, Jim, March 27, 1990, site representative interview, conducted by Tim Mayers of E & E.

E & E, 1987, Quality Assurance Project Plan Region V FIT Conducted Site Inspections, Chicago, Illinois.

McCarrin, Mike, March 7, 1977, IEPA, internal memorandum to file.

Pace, Terry, December 20, 1989, Superintendent, Union Water Department, telephone conversation, contacted by Tim Mayers of E & E.

Ray, B. W., and H. L. Wascher, 1965, Assistant Professor and Associate Professor of Geology, respectively, McHenry County Soils, Soil Report 81, University of Illinois, Agricultural Experiment Station, in cooperation with the U.S. Department of Agriculture, Soil Conservation Service.

APPENDIX A

SITE 4-MILE RADIUS MAP

9. WELL LOCATIONS

APPENDIX B

U.S. EPA FORM 2070-13

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	985537780

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Flemming's Service Station	1080 E. Grant Highway (U.S. Route 20)				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Marengo	Il.	60152	McHenry	111	12

09 COORDINATES LATITUDE 42° 15' 30.N | LONGITUDE 088° 37' 30.W

10 TYPE OF OWNERSHIP (Check one)
■ A. PRIVATE ☐ B. FEDERAL _____ ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER _____ ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
3 / 27 / 90 (MONTH DAY YEAR)	■ ACTIVE ☐ INACTIVE	Feb. 1980 (BEGINNING YEAR) Present (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
☐ A. EPA ■ B. EPA CONTRACTOR Ecology & Environment, Inc. (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
☐ E. STATE ☐ F. STATE CONTRACTOR _____ (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Tim Mayers	Geographer	Ecology & Environment, Inc.	(312) 663-9415
09 OTHER INSPECTORS	**10 TITLE**	**11 ORGANIZATION**	**12 TELEPHONE NO.**
Karen Spangler	Environmental Engineer	Ecology & Environment, Inc.	(312) 663-9415
Jeff Taylor	Biologist	Ecology & Environment, Inc.	(312) 663-9415
Chuck Hall	Environmental Engineer	Ecology & Environment, Inc.	(312) 663-9415
Deneen Benford	Biologist	Ecology & Environment, Inc.	(312) 663-9415
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Jim Carmichael	Owner / Operator	1080 E. Grant, Marengo, Il.	(815) 568-8337
Ron Flemming	Past Owner / Operator	433 Willow Rd., Marengo, Il.	(815) 568-7252
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
■ PERMISSION ☐ WARRANT	3/27: 08 00 - 1300	~ 50° F, variable sun and wind

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Thomas Crause	Illinois Environmental Protection Agency (IEPA)	(217) 782-9848

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Tim Mayers	U.S. EPA / FIT	Ecology & Environment, Inc. Chicago, Il.	312/663-9415	7 / 20 / 90 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981537780

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER (Specify)
- ☐ E. SLURRY
- ■ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

- TONS: UNKNOWN
- CUBIC YARDS:
- NO. OF DRUMS:

03 WASTE CHARACTERISTICS (Check all that apply)

- ■ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ■ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ■ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			Refer to History section in narrative and Tables 4-1 and 4-2 in narrative
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	Refer to Tables 4-1 and 4-2 in narrative, also History section				

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	NA		FDS	NA	
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

State and Federal File information
EPE Chicago (EIT) 3/27/90

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981537780

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ■ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~10,500 — 04 NARRATIVE DESCRIPTION

SEE Subsection 5.2 in NARRATIVE

01 ☐ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

SEE Subsection 5.3 in NARRATIVE

01 ■ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~10,500 — 04 NARRATIVE DESCRIPTION

SEE Subsection 5.4 in NARRATIVE

01 ■ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 14,500 — 04 NARRATIVE DESCRIPTION

SEE Subsection 5.5 in NARRATIVE

01 ■ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~ 1470 — 04 NARRATIVE DESCRIPTION

SEE Subsection 5.6 in NARRATIVE

01 ■ F. CONTAMINATION OF SOIL — 02 ■ OBSERVED (DATE: 3/27/90) — ☐ POTENTIAL — ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: UNKNOWN (Acres) — 04 NARRATIVE DESCRIPTION

contaminants detected in on-site soil samples
SEE NARRATIVE: TABLE 4-1 for soil analytical results

01 ■ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~ 10,500 — 04 NARRATIVE DESCRIPTION

SEE Subsection 5.2 in NARRATIVE

01 ■ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: ~8 — 04 NARRATIVE DESCRIPTION

SEE NARRATIVE

01 ■ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ■ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~10,500 — 04 NARRATIVE DESCRIPTION

SEE NARRATIVE

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981537780

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ■ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
potential exists from contaminants detected in on-site soil

01 ■ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include names of species)
potential exists from animals coming into contact with contaminants detected in soil or eating plants

01 ■ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
An Agricultural field was observed adjacent to the site.

01 ■ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ■ OBSERVED (DATE: 3/27/90) ■ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~10,500
04 NARRATIVE DESCRIPTION
contaminants detected in on-site soil samples

01 ■ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
An Agricultural field was observed adjacent to the site.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
None observed or reported

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
None reported or observed

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
The site contains 3 abandoned underground storage tanks presently stored in the rear of the site. Site rep. stated they were used for gasoline by past operators and presently they are empty.

III. TOTAL POPULATION POTENTIALLY AFFECTED: ~10,500

IV. COMMENTS
A small company that polishes molds is located on-site as well. It employs 12 people and reportedly does not utilize any chemicals in operation.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)
site inspection conducted 3/27/90 by E&E-Chicago
topographic maps

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981537780

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
■ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
■ D. TANK, ABOVE GROUND	3	~500 GAL.
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL NA
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify)

05 OTHER

■ A. BUILDINGS ON SITE
1

06 AREA OF SITE

~1 (Acres)

07 COMMENTS

THE SITE WAS, AT SEVERAL TIMES IN THE PAST, UTILIZED AS A SERVICE STATION. THE PRESENT OWNER, JIM CARMICHAEL, OPERATES A CONSTRUCTION BUSINESS FROM THE SITE.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ■ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

FIT OBSERVED 4 RUSTED, EMPTY 55-GALLON DRUMS IN THE NW CORNER OF THE SITE.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ■ YES ☐ NO

02 COMMENTS

SITE IS NOT COMPLETELY FENCED

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

SITE INSPECTION INTERVIEW CONDUCTED 3/27/90 BY E&E WITH JIM CARMICHAEL AND RON FLEMMING.

FEDERAL AND STATE FILE INFORMATION

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	9815327280

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL
COMMUNITY	A. ☐	B. ■
NON-COMMUNITY	C. ☐	D. ■

02 STATUS	ENDANGERED	AFFECTED	MONITORED
	A. ☐	B. ☐	C. ■
	D. ☐	E. ☐	UNKNOWN

03 DISTANCE TO SITE
A. ~ 1/2 (mi)
B. ON-SITE (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

■ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER ~ 19,500

03 DISTANCE TO NEAREST DRINKING WATER WELL ON-SITE (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
~ 10 (ft)	ASSUMED TO BE N. towards KISHWAUKEE R.	~ 10 (ft)	UNKNOWN (gpd)	☐ YES ■ NO

09 DESCRIPTION OF WELLS (Including usage, depth, and location relative to population and buildings)
Marengo operates 3 municipal wells, each ~ 85' deep, finished in sand/gravel. Private wells in the area draw from sand and gravel as well.

10 RECHARGE AREA		11 DISCHARGE AREA	
■ YES ☐ NO	COMMENTS: Through the natural process of percolation of infiltrating precipitation.	■ YES ☐ NO	COMMENTS: Kishwaukee River likely serves as a discharge area.

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

■ A. RESERVOIR, RECREATION, DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME	AFFECTED	DISTANCE TO SITE
No potential to Kishwaukee R. from this site	☐	~ 2 (mi)
	☐	(mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. ~ 1470 NO. OF PERSONS	B. ~ 4500 NO. OF PERSONS	C. ~ 6,000 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: ON-SITE (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE	04 DISTANCE TO NEAREST OFF-SITE BUILDING
~ 1500	~ 30' (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)
SITE is located in SW corner of Marengo Illinois in a mixed residential/commercial area. Agricultural areas are located nearby as well.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
FLD	980537980

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ■ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ■ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
~118 (ft)	UNKNOWN (ft)	UNKNOWN	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE		
		SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
2 (in)	2.5 (in)	≤3 %	FLAT	≤3 %

09 FLOOD POTENTIAL

SITE IS IN UNKNOWN YEAR FLOODPLAIN

10

NA

☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE	OTHER
A. NA (mi)	B. >1 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

>1 (mi)

ENDANGERED SPECIES: N/A

13 LAND USE IN VICINITY

DISTANCE TO:

(COMMERCIAL) INDUSTRIAL	(RESIDENTIAL AREAS); NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS PRIME AG LAND	AG LAND
A. ON-SITE (mi)	B. ~100' (mi)	C. ADJACENT (NORTH SIDE) (mi)	D. ADJACENT (NORTH SIDE) (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

SEE APPENDIX A - 4 MILE RADIUS MAP

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

SITE INSPECTION ACTIVITIES CONDUCTED BY E&E 3/27/90

FEDERAL, STATE FILES

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	980537780

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	6	SEE NARRATIVE FOR LABS USED	
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	6		
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
OVA - 128	No READINGS ABOVE BACKGROUND READINGS
RAD - MINI EXPLOSIMETER	
DRAGER TUBE w/ HCN	
O_2 METER	

IV. PHOTOGRAPHS AND MAPS

01 TYPE ■ GROUND ☐ AERIAL

02 IN CUSTODY OF Ecology & Environment, Inc. / Chicago office
(Name of organization or individual)

03 MAPS ■ YES ☐ NO

04 LOCATION OF MAPS Ecology & Environment, Inc. / Chicago office

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

pH, conductivity, AND temperature READINGS WERE TAKEN for ALL RESIDENTIAL WELLS collected on March 28, 1990 (REFER TO TABLE 4-2)

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

E&E site inspection conducted on 3/27/90

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981537780

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	08 NAME (PARENT COMPANY, if applicable)	09 D+B NUMBER
(Carmichael construction) Jim Carmichael		NA	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE
1080 E. Grant			

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
Marengo	Il.	60152			

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER
NA		NA	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER
NA		NA	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER
NA		NA	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first) / IV. REALTY OWNER(S) (If applicable; list most recent first)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Ron Flemming		NA	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
433 Willow Rd.			

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
Marengo	Il.	60152			

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Chuck Griffin		NA	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
unknown			

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
unknown					

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
unknown		NA	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Site inspection conducted by E&E 3/27/90

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981537780

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
SAME AS OWNER * SEE BELOW	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER
NA	

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D+B NUMBER
SAME AS PREVIOUS OWNER	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER
NA	

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

SITE inspection conducted by E&E 3/27/86

* A molding polishing company also operates from A LEASED room in the on-site Building

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	980537780

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER	
NA		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
BEAM DRUM SITE		NA	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
UNKNOWN			
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
MARENGO	IL.		
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
NA		NA	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
UNKNOWN		NA	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
NA		NA	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

E&E SITE INSPECTION 3/27/90

FEDERAL AND STATE FILE

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	980537780

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ O. EMERGENCY DIKING SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981537780

II. PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FEDERAL AND STATE FILES
E&E FILES - REGION II

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJD	980577780

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ■ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

SEE NARRATIVE

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FEDERAL AND STATE FILES
E&E FILES - REGION II

EPA FORM 2070-13 (7-81)

APPENDIX C

FIT SITE PHOTOGRAPHS

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Flemming's Service Station PAGE 1 OF 9

U.S. EPA ID: ILD981537780 TDD: F05-8808-014 PAN: F1L0664SB

DATE: 3/27/90

TIME: 0935

DIRECTION OF PHOTOGRAPH: North

WEATHER CONDITIONS: ~50°F, VARIABLE SUN AND WIND

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): S1

DESCRIPTION: close-up of S1 location

DATE: 3/27/90

TIME: 0935

DIRECTION OF PHOTOGRAPH: North

WEATHER CONDITIONS: ~50°F, VARIABLE SUN AND WIND

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): S1

DESCRIPTION: perspective of S1

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Flemming's Service Station PAGE 2 OF 9

U.S. EPA ID: ILD981537780 TDD: F05-8808-014 PAN: FILO66453

DATE: 3/27/90

TIME: 0955

DIRECTION OF PHOTOGRAPH: EAST

WEATHER CONDITIONS: ~50°F, VARIABLE SUN AND WIND

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): S2

DESCRIPTION: close-up of S2 location

DATE: 3/27/90

TIME: 0955

DIRECTION OF PHOTOGRAPH: EAST

WEATHER CONDITIONS: ~50°F, VARIABLE SUN AND WIND

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): S2

DESCRIPTION: perspective of S2 location; note tanks in background

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Flemming's Service Station PAGE 3 OF 9

U.S. EPA ID: ILD981537780 TDD: F05-8808-014 PAN: FILOGG4513

DATE: 3/27/90

TIME: 1015

DIRECTION OF PHOTOGRAPH: South

WEATHER CONDITIONS: ~50°F, VARIABLE SUN AND WIND

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): S3

DESCRIPTION: close-up of S3 location

DATE: 3/27/90

TIME: 1015

DIRECTION OF PHOTOGRAPH: South

WEATHER CONDITIONS: ~50°F, VARIABLE SUN AND WIND

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): S3

DESCRIPTION: perspective of S3

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Flemming's Service Station PAGE 4 OF 9

U.S. EPA ID: ILD981537780 TDD: F05-8808-014 PAN: FILOG64SB

DATE: 3/27/90

TIME: 1020

DIRECTION OF PHOTOGRAPH: SOUTHEAST

WEATHER CONDITIONS: ~50°F, VARIABLE SUN AND WIND

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): S4

DESCRIPTION: close-up of S4 location

DATE: 3/27/90

TIME: 1020

DIRECTION OF PHOTOGRAPH: SOUTHEAST

WEATHER CONDITIONS: ~50°F, VARIABLE SUN AND WIND

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): S4

DESCRIPTION: perspective of S4 location; note construction debris and equipment in foreground/background.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Flemming's Service Station PAGE 5 OF 9

U.S. EPA ID: ILD981537780 TDD: F05-8808-014 PAN: FILOGG6458

DATE: 3/27/90

TIME: 1050

DIRECTION OF PHOTOGRAPH: SOUTHEAST

WEATHER CONDITIONS: ~50°F, VARIABLE SUN AND WIND

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): SS

DESCRIPTION: close-up of SS location

DATE: 3/27/90

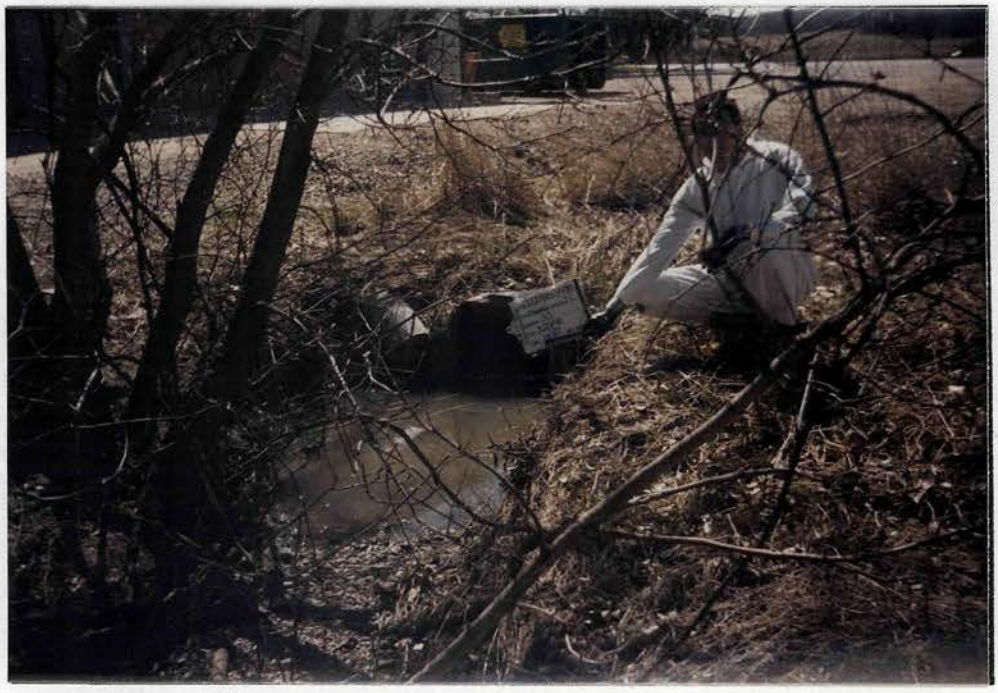
TIME: 1050

DIRECTION OF PHOTOGRAPH: SOUTHEAST

WEATHER CONDITIONS: ~50°F, VARIABLE SUN AND WIND

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): SS



DESCRIPTION: perspective of SS

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Flemming's Service Station PAGE 6 OF 9

U.S. EPA ID: ILD981537780 TDD: F05-8808-014 PAN: FIL066455

DATE: 3/27/90

TIME: 1130

DIRECTION OF PHOTOGRAPH: northwest

WEATHER CONDITIONS: ~50°F, variable sun and wind

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): S6

DESCRIPTION: close-up of S6 location

DATE: 3/27/90

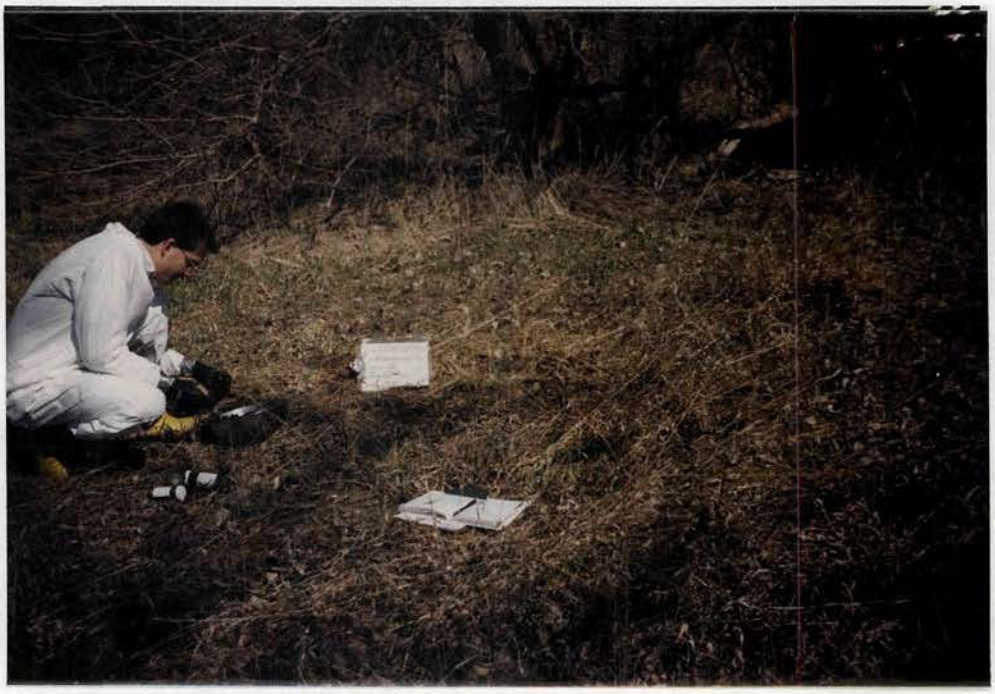
TIME: 1130

DIRECTION OF PHOTOGRAPH: northwest

WEATHER CONDITIONS: ~50°F, variable sun and wind

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): S6



DESCRIPTION: perspective of S6 location

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Flemming's Service Station PAGE 7 OF 9

U.S. EPA ID: ILD981537780 TDD: F05-8808-014 PAN: FILO66455

DATE: 3/27/90

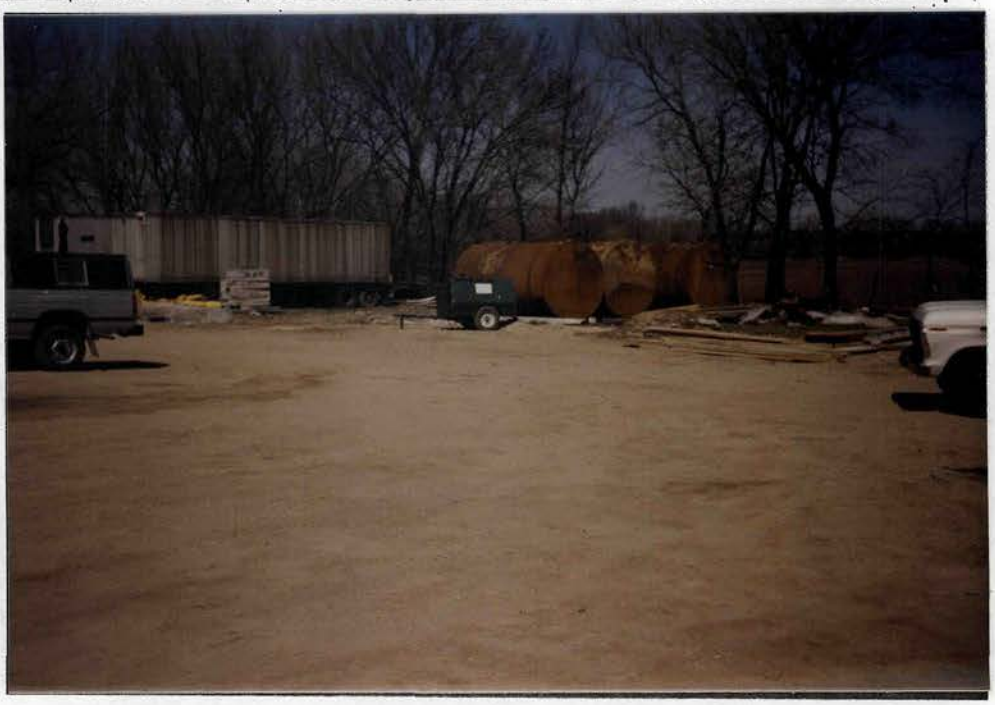
TIME: 1135

DIRECTION OF PHOTOGRAPH: Northwest

WEATHER CONDITIONS: ~50°F, variable sun and wind

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): N/A



DESCRIPTION: rear of site; note tanks and trailers

DATE: 3/27/90

TIME: 1140

DIRECTION OF PHOTOGRAPH: Southwest

WEATHER CONDITIONS: ~50°F, variable sun and wind

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): N/A

DESCRIPTION: photo taken from northeast corner of site

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Flemming's Service Station PAGE 8 OF 9

U.S. EPA ID: ILD981537780 TDD: F05-8808-014 PAN: FILOGG6513

DATE: 3/27/90

TIME: 1150

DIRECTION OF PHOTOGRAPH: EAST

WEATHER CONDITIONS: ~50°F, VARIABLE SUN AND WIND

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): N/A

DESCRIPTION: photo shows front of Building on-site looking EAST

DATE: 3/27/90

TIME: 1200

DIRECTION OF PHOTOGRAPH: North

WEATHER CONDITIONS: ~50°F, VARIABLE SUN AND WIND

PHOTOGRAPHED BY: Tim Mayers

SAMPLE ID (if applicable): N/A

DESCRIPTION: photo shows front of Building on-site from Across Rt. 20 (Grant St.)

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Flemming's Service Station PAGE 9 OF 9

U.S. EPA ID: ILD981537780 TDD: FOS-8808-014 PAN: F1L0664SS

DATE: 3/28/90

TIME: 1045

DIRECTION OF PHOTOGRAPH: WEST

WEATHER CONDITIONS: ~50°F, VARIABLE WIND AND SUN

PHOTOGRAPHED BY: Chuck Hall

SAMPLE ID (if applicable): RW1

DESCRIPTION: photo shows tap from which RW1 was collected

DATE: 3/28/90

TIME: 1115

DIRECTION OF PHOTOGRAPH: WEST

WEATHER CONDITIONS: ~50°F, VARIABLE WIND AND SUN

PHOTOGRAPHED BY: Chuck Hall

SAMPLE ID (if applicable): RW3

DESCRIPTION: photo shows tap from which RW3 was collected

APPENDIX D

U.S. EPA TARGET COMPOUND LIST AND TARGET ANALYTE LIST QUANTITATION/DETECTION LIMITS

ADDENDUM A

ROUTINE ANALYTICAL SERVICES
CONTRACT REQUIRED DETECTION AND QUANTITATION LIMITS

Contract Laboratory Program
Target Compound List
Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Chloromethane	74-87-3	10 ug/L	10 ug/Kg
Bromomethane	74-83-9	10	10
Vinyl chloride	75-01-4	10	10
Chloroethane	75-00-3	10	10
Methylene chloride	75-09-2	5	5
Acetone	67-64-1	10	5
Carbon disulfide	75-15-0	5	5
1,1-dichloroethene	75-35-4	5	5
1,1-dichloroethane	75-34-3	5	5
1,2-dichloroethene (total)	540-59-0	5	5
Chloroform	67-66-3	5	5
1,2-dichloroethane	107-06-2	5	5
2-butanone (MEK)	78-93-3	10	10
1,1,1-trichloroethane	71-55-6	5	5
Carbon tetrachloride	56-23-5	5	5
Vinyl acetate	108-05-4	10	10
Bromodichloromethane	75-27-4	5	5
1,2-dichloropropane	78-87-5	5	5
cis-1,3-dichloropropene	10061-01-5	5	5
Trichloroethene	79-01-6	5	5
Dibromochloromethane	124-48-1	5	5
1,1,2-trichloroethane	79-00-5	5	5
Benzene	71-43-2	5	5
Trans-1,3-dichloropropene	10061-02-6	5	5
Bromoform	75-25-2	5	5
4-Methyl-2-pentanone	108-10-1	10	10
2-Hexanone	591-78-6	10	10
Tetrachloroethene	127-18-4	5	5
Tolene	108-88-3	5	5
1,1,2,2-tetrachloroethane	79-34-5	5	5
Chlorobenzene	108-90-7	5	5
Ethyl benzene	100-41-4	5	5
Styrene	100-42-5	5	5
Xylenes (total)	1330-20-7	5	5

Table A
Contract Laboratory Program
Target Compound List
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Phenol	108-95-2	10 ug/L	330 ug/Kg
bis(2-Chloroethyl) ether	111-44-4	10	330
2-Chlorophenol	95-57-8	10	330
1,3-Dichlorobenzene	541-73-1	10	330
1,4-Dichlorobenzene	106-46-7	10	330
Benzyl Alcohol	100-51-6	10	330
1,2-Dichlorobenzene	95-50-1	10	330
2-Methylphenol	95-48-7	10	330
bis(2-Chloroisopropyl) ether	108-60-1	10	330
4-Methylphenol	106-44-5	10	330
N-Nitroso-di-n-dipropylamine	621-64-7	10	330
Hexachloroethane	67-72-1	10	330
Nitrobenzene	98-95-3	10	330
Isophorone	78-59-1	10	330
2-Nitrophenol	88-75-5	10	330
2,4-Dimethylphenol	105-67-9	10	330
Benzoic Acid	65-85-0	50	1600
bis(2-Chloroethoxy) methane	111-91-1	10	330
2,4-Dichlorophenol	120-83-2	10	330
1,2,4-Trichlorobenzene	120-82-1	10	330
Naphthalene	91-20-3	10	330
4-Chloroaniline	106-47-8	10	330
Hexachlorobutadiene	87-68-3	10	300
4-Chloro-3-methylphenol	59-50-7	10	330
2-Methylnaphthalene	91-57-6	10	330
Hexachlorocyclopentadiene	77-47-4	10	330
2,4,6-Trichlorophenol	88-06-2	10	330
2,4,5-Trichlorophenol	95-95-4	50	1600
2-Chloronaphthalene	91-58-7	10	330
2-Nitroaniline	88-74-4	50	1600
Dimethylphthalate	131-11-3	10	330
Acenaphthylene	208-96-8	10	330
2,6-Dinitrotoluene	606-20-2	10	330
3-Nitroaniline	99-09-2	50	1600
Acenaphthene	83-32-9	10	330
2,4-Dinitrophenol	51-28-5	50	1600
4-Nitrophenol	100-02-7	50	1600
Dibenzofuran	132-64-9	10	330
2,4-Dinitrotoluene	121-14-2	10	330
Diethylphthalate	84-66-2	10	330
4-Chlorophenyl-phenyl ether	7005-72-3	10	330

Table A
Contract Laboratory Program
Target Compound List
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SLUDGE SEDIMENT
Fluorene	86-73-7	10 ug/L	330 ug/Kg
4-Nitroaniline	100-01-6	50	1600
4,6-Dinitro-2-methylphenol	534-52-1	50	1600
N-nitrosodiphenylamine	86-30-6	10	330
4-Bromophenyl-phenylether	101-55-3	10	330
Hexachlorobenzene	118-74-1	10	330
Pentachlorophenol	87-86-5	50	1600
Phenanthrene	85-01-8	10	330
Anthracene	120-12-7	10	330
Di-n-butylphthalate	84-74-2	10	330
Fluoranthene	206-44-0	10	330
Pyrene	129-00-0	10	330
Butylbenzylphthalate	85-68-7	10	330
3,3'-Dichlorobenzidine	91-94-1	20	660
Benzo(a)anthracene	56-55-3	10	330
Chrysene	218-01-9	10	330
bis(2-Ethylhexyl)phthalate	117-81-7	10	330
Di-n-octylphthalate	117-84-0	10	330
Benzo(b)fluoranthene	205-99-2	10	330
Benzo(k)fluoranthene	207-08-9	10	330
Benzo(a)pyrene	50-32-8	10	330
Indeno(1,2,3-cd)pyrene	193-39-5	10	330
Dibenz(a,h)anthracene	53-70-3	10	330
Benzo(g,h,i)perylene	191-24-2	10	330

Table A
Contract Laboratory Program
Target Compound List
Pesticide and PCB Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
alpha-BHC	319-84-6	0.05 ug/L	8 ug/Kg
beta-BHC	319-85-7	0.05	8
delta-BHC	319-86-8	0.05	8
gamma-BHC (Lindane)	58-89-9	0.05	8
Heptachlor	76-44-8	0.05	8
Aldrin	309-00-2	0.05	8
Heptachlor epoxide	1024-57-3	0.05	8
Endosulfan I	959-98-8	0.05	8
Dieldrin	60-57-1	0.10	16
4,4'-DDE	72-55-9	0.10	16
Endrin	72-20-8	0.10	16
Endosulfan II	33213-65-9	0.10	16
4,4'-DDD	72-54-8	0.10	16
Endosulfan sulfate	1031-07-8	0.10	16
4,4'-DDT	50-29-3	0.10	16
Methoxychlor (Mariate)	72-43-5	0.5	80
Endrin ketone	53494-70-5	0.10	16
alpha-Chlordane	5103-71-9	0.5	80
gamma-chlordane	5103-74-2	0.5	80
Toxaphene	8001-35-2	1.0	160
AROCLOR-1016	12674-11-2	0.5	80
AROCLOR-1221	11104-28-2	0.5	80
AROCLOR-1232	11141-16-5	0.5	80
AROCLOR-1242	53469-21-9	0.5	80
AROCLOR-1248	12672-29-6	0.5	80
AROCLOR-1254	11097-69-1	1.0	160
AROCLOR-1260	11096-82-5	1.0	160

Table A
Contract Laboratory Program
Target Analyte List
Inorganic Quantitation Limits

COMPOUND	PROCEDURE	SOIL WATER	SEDIMENT SLUDGE
Aluminum	ICP	200 ug/L	40 mg/Kg
Antimony	Furnace	60	2.4
Arsenic	Furnace	10	2
Barium	ICP	200	40
Beryllium	ICP	5	1
Cadmium	ICP	5	1
Calcium	ICP	5000	1000
Chromium	ICP	10	2
Cobalt	ICP	50	10
Copper	ICP	25	5
Iron	Icp	100	20
Lead	Furnace	5	1
Magnesium	ICP	5000	1000
Manganese	ICP	15	3
Mercury	Cold Vapor	0.2	0.008
Nickel	ICP	40	8
Potassium	ICP	5000	1000
Selenium	Furnace	5	1
Silver	ICP	10	2
Sodium	ICP	5000	1000
Thallium	Furnace	10	2
Vanadium	ICP	50	10
Zinc	ICP	20	4
Cyanide	Color	10	2

SPECIAL ANALYTICAL SERVICES
DETECTION LIMITS

Drinking Water Samples

SPECIAL ANALYTICAL SERVICES DRINKING WATER
VOLATILE QUANTITATION LIMITS

PARAMETER	CAS #	DETECTION LIMIT IN REAGENT WATER
Benzene	71-43-2	1.5 ug/L
Bromodichloromethane	74-27-4	1.5
Bromoform	75-25-2	1.5
Bromomethane	74-83-9	10
Carbon tetrachloride	56-23-5	1.5
Chlorobenzene	108-90-7	1.5
Chloroethane	75-00-3	1.5
2-Chloroethyl vinyl ether	110-75-8	1.5
Chloroform	67-66-3	1.5
Chloromethane	74-87-3	10
Dibromochloromethane	124-48-1	1.5
1,1-Dichloroethane	75-34-3	1.5
1,2-Dichloroethane	107-06-2	1.5
1,1-Dichloroethene	75-35-4	1.5
trans-1,2-Dichloroethene	156-60-5	1.5
1,2-Dichloropropane	78-87-5	1.5
cis-1,3-Dichloropropene	10061-01-5	2
trans-1,3-Dichlopropropene	10061-02-6	1
Ethyl benzene	100-41-4	1.5
Methylene chloride *	75-09-2	1
1,1,2,2-Tetrachloroethane	79-34-5	1.5
Tetrachloroethene	127-18-4	1.5
Toluene *	108-88-3	1.5
1,1,1-Trichloroethane	71-55-6	1.5
1,1,2-Trichloroethane	79-00-5	1.5
Trichloroethene	79-01-6	1.5
Vinyl chloride	75-01-4	10
Acrolein	107-02-8	100
Acetone *	67-64-1	75
Acrylonitrile	107-13-1	50
Carbon disulfide	75-15-0	3
2-Butanone	78-93-3	(50)
Vinyl acetate	108-05-4	15
4-Methyl-2-pentanone	108-10-1	(3)
2-Hexanone	519-78-6	(50)
Styrene	100-42-5	1
m-Xylene	108-38-3	2
o-Xylene **	95-47-6	
p-Xylene **	106-42-3	2.5 **
Xylene (total)	1330-02-7	

* Common laboratory solvents.
Blank limit is 5x method detection limit.
( ) Values in parentheses are estimates.
actual values are being determined at this time.
** The o-xylene and p-xylene are reported as a total of the two.

SAS DRINKING WATER
SEMIVOLATILES QUANTITATION LIMITS

PARAMETER	CAS #	DETECTION LIMIT
Aniline	62-53-3	1.5 ug/l
Bis(2-chloroethyl)ether	111-44-4	1.5
Phenol	108-95-2	2
2-Chlorophenol	95-57-8	2
1,3-Dichlorobenzene	541-73-1	2
1,4-Dichlorobenzene	106-46-7	2
1,2-Dichlorobenzene	95-50-1	2.5
Benzyl alcohol	100-51-6	2
Bis(2-chloroisopropyl)ether	39638-32-9	2.5
2-Methylphenol	95-48-7	1
Hexachloroethane	67-72-1	2
n-Nitrosodipropylamine	621-64-7	1.5
Nitrobenzene	98-95-3	2.5
4-Methylphenol	88-75-5	1
Isophorone	78-59-1	2.5
2-Nitrophenol	88-75-5	2
2,4-Dimethylphenol	105-67-9	2
Bis(2-Chloroethoxy)methane	111-91-1	2.5
2,4-Dichlorophenol	120-83-2	2
1,2,4-Trichlorobenzene	120-82-1	2
Naphthalene	91-20-3	2
4-Chloroaniline	106-47-8	2
Hexachlorobutadiene	87-68-3	2.5
Benzoic Acid	65-85-0	(30)
2-Methylnapthalene	91-57-6	2
4-Chloro-3-methylphenol	59-50-7	1.5
Hexachlorocyclopentadiene	77-47-4	2
2,4,6-Trichlorophenol	88-06-2	1.5
2,4,5-Trichlorophenol	95-95-4	1.5
2-Chloronapthalene	91-58-7	1.5
Acenapthylhene	208-96-8	1.5
Dimethyl phthalate	131-11-3	1.5
2,6-Dinitrotoluene	606-20-2	1
Acenaphthene	83-32-9	1.5
3-Nitroaniline	99-09-2	2.5
Dibenzofuran	132-64-9	1
2,4-Dinitrophenol	51-28-5	(15)
2,4-Dinitrotoluene	121-14-2	1

SAS DRINKING WATER
SEMIVOLATILE QUANTITATION LIMITS

PARAMETER	CAS #	DETECTION LIMIT
Fluorene	86-73-7	1 ug/L
4-Nitrophenol	100-02-7	1.5
4-Chlorophenyl phenyl ether	7005-72-3	1
Diethyl phthalate	84-66-2	1
4,6-Dinitro-2-methylphenol	534-52-1	(15)
1,2-Diphenylhydrazine	122-66-7	1
n-Nitrosodiphenylamine *	86-30-6	
Diphenylamine *	122-39-4	1.5
4-Nitroaniline	100-01-6	3
4-Bromophenyl-phenylether	101-55-3	1.5
Hexachlorobenzene	118-74-1	1.5
Pentachlorophenol	87-86-5	2
Phenanthrene	85-01-8	1
Anthracene	120-12-7	2.5
di-n-Butyl phthalate	84-74-2	2
Fluoranthene	206-44-0	1.5
Pyrene	129-00-0	1.5
Butyl benzyl phthalate	85-68-7	3.5
Chrysene **	218-01-9	
Benzo(A)Anthracene **	56-55-3	1.5
bis(2-ethylhexyl)phthalate	117-81-7	1
di-n-Octyl phthalate	117-84-0	1.5
Benzo(b)fluoranthene ***	205-99-2	
Benzo(k)fluoranthene ***	207-08-9	1.5
Benzo(a)pyrene	50-32-8	2
Indeno(1,2,3-cd)pyrene	193-39-5	3.5
Dibenzo(a,h)anthracene	53-70-3	2.5
Benzo(g,h,i)perylene	191-24-2	4
2-Nitroaniline	88-74-4	1

* These two parameters are reported as a total.
** These two parameters are reported as a total.
*** These two parameters are reported as a total.

( ) Values in parentheses are estimates.
The actual values are being determined at this time.

Note: Limits are for reagent water.

SAS DRINKING WATER
PESTICIDE AND PCB QUANTITATION LIMITS

PARAMETER	CAS #	DETECTION LIMIT
Aldrin	309-00-2	0.005 ug/L
alpha BHC	319-84-6	(0.010)
beta BHC	319-85-7	(0.005)
delta BHC	319-86-8	(0.005)
gamma BHC (Lindane)	58-89-9	0.005
Chlordane	57-74-9	(0.020)
4,4'-DDD	72-54-8	(0.020)
4,4'-DDE	72-55-9	(0.005)
4,4'-DDT	50-29-3	0.020
Dieldrin	60-57-1	0.010
Endosulfan I	959-98-8	0.010
Endosulfan II	33213-65-9	0.010
Endosulfan sulfate	1031-07-8	(0.10)
Endrin	72-20-8	0.010
Endrin Aldehyde	7421-93-4	(0.030)
Endrin Ketone	53494-70-5	(0.030)
Heptachlor	76-44-8	0.030
Heptachlor Epoxide	1024-57-3	0.005
4,4'-Methoxychlor	72-43-5	0.020
Toxaphene	8001-35-2	(0.25)
PCB-1242	53469-21-9	(0.10)
PCB-1248	12672-29-6	(0.10)
PCB-1254	11097-69-1	(0.10)
PCB-1260	11096-82-5	(0.10)

( ) Values in parentheses are estimates.
Actual values are being determined at this time.

Note: Limits are for reagent water.

SAS DRINKING WATER
INORGANIC DETECTION LIMITS

JANUARY 1986

PARAMETER	PROCEDURE	DETECTION LIMIT
Aluminum	ICP	100
Antimony	GFAA	2
Arsenic	GFAA	2
Barium	ICP	50
Beryllium	ICP	5
Cadmium	ICP	10
Cadmium	GFAA	0.2
Calcium	ICP	1000
Chromium	ICP	10
Cobalt	ICP	10
Copper	ICP	10
Iron	ICP	100
Lead	GFAA	2
Magnesium	ICP	1000
Manganese	ICP	10
Mercury	Cold Vapor	0.2
Nickel	ICP	20
Potassium	ICP	2000
Selenium	GFAA	2
Silver	ICP	5
Sodium	ICP	1000
Thallium	GFAA	2
Tin	ICP	40
Vanadium	ICP	10
Zinc	ICP	20
Cyanide	Colorimetric	5.0

Note: The above list may or may not contain compounds that are routinely analyzed at CRL for lov level detection limits for drinking vater.

See inorganic Routine Analytical Services (RAS) for related CAS #.

APPENDIX E

WELL LOGS OF THE AREA OF THE SITE

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug ____. Bored ____. Hole Diam. 5 in. Depth 172 ft.
   Curb material ____. Buried Slab: Yes ____ No ____
   b. Driven ____. Drive Pipe Diam. ____ in. Depth ____ ft.
   c. Drilled X. Finished in Drift ____. In Rock X.
   Tubular ____. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Cuttings	0	120

2. Distance to Nearest:
   Building 10 Ft. — Seepage Tile Field ____
   Cess Pool ____ — Sewer (non Cast iron) ____
   Privy ____ — Sewer (Cast Iron) ____
   Septic Tank 72 — Barnyard ____
   Leaching Pit ____ — Manure Pile ____
3. Well furnishes water for human consumption? Yes X No ____
4. Date well completed 10/15/81
5. Permanent Pump Installed? Yes X Date 10/15/81 No ____
   Manufacturer Red Jacket Type Subm Location in well
   Capacity 10 gpm. Depth of Setting 84 Ft.
6. Well Top Sealed? Yes X No ____ Type Williams Cap
7. Pitless Adapter Installed? Yes X No ____
   Manufacturer Williams Model Number D50AC
   How attached to casing? Locknut
8. Well Disinfected? Yes X No ____
9. Pump and Equipment Disinfected? Yes X No ____
10. Pressure Tank Size 120 gal. Type Galv.
    Location Basement
11. Water Sample Submitted? Yes ____ No X

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Propert
    Addres
    Driller
11. Permit
12. Water f
    at dept
14. Screen:
    Length: ____ ft. Slot ____ Rge. 6E
    Elev. ____

[redacted] (b)(6) PERSONAL PRIVACY

SHOW LOCATION IN SECTION PLAT
SW SW NW

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5"	Black Steel	0	120
	15 lbs per ft		

16. Size Hole below casing: 5 in.
17. Static level 20 ft. below casing top which is 1 ft. above ground level. Pumping level 80 ft. when pumping at 10 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top Soil	2	2
Gray Clay	118	120
Limestone w/ Shale	30	150
Limestone	22	172

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [signature] DATE 10/30/81

IDPH 4.065
1/74 – KNB-1

#1

White Copy – Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug ____. Bored ____. Hole Diam. 5 in. Depth 58 ft.
   Curb material ____. Buried Slab: Yes ____ No ____
   b. Driven ____. Drive Pipe Diam. ____ in. Depth ____ ft.
   c. Drilled X. Finished in Drift ____. In Rock ____.
   Tubular ____. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building ____ Ft. Seepage Tile Field ____
   Cess Pool ____ Sewer (non Cast iron) ____
   Privy ____ Sewer (Cast iron) ____
   Septic Tank ____ Barnyard ____
   Leaching Pit ____ Manure Pile ____
3. Well furnishes water for human consumption? Yes x No ____
4. Date well completed 1/13/78
5. Permanent Pump Installed? Yes x Date ____ No ____
   Manufacturer Aermotor Type sub Location ____
   Capacity 4 gpm. Depth of Setting 45 Ft.
6. Well Top Sealed? Yes X No ____ Type watertite
7. Pitless Adapter Installed? Yes X No ____
   Manufacturer Baker-monitor Model Number snappOy
   How attached to casing? compression
8. Well Disinfected? Yes X No ____
9. Pump and Equipment Disinfected? Yes X No ____
10. Pressure Tank Size 42 gal. Type Cor-Aire
    Location ____
11. Water Sample Submitted? Yes ____ No X

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property
    Address
    Driller
11. Permit
12. Water fr
    at depth
14. Screen:
    Length:
    w/bailer hook Elev. ____
15. Casing and Liner Pipe

[redacted] (b) 6. PERSONAL PRIVACY

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	PVC	1	54

SHOW LOCATION IN SECTION PLAT
50'S, 300'E, w/k, NW NW NW (Lindow Appliance)

16. Size Hole below casing: 5 in.
17. Static level 25 ft. below casing top which is 1 ft. above ground level. Pumping level 35 ft. when pumping at 9 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top soil 4	4	
Pink clay and gravel	8	12
Gray clay	8	20
Gravel (set screen)	38	58
Pink clay	10	68

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [signature] DATE 1/16/78

IDPH 4.065
1/74 – KNB-1

#2

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam. 5 in. Depth 244 ft.
   Curb material _____. Buried Slab: Yes_____ No_____
   b. Driven _____. Drive Pipe Diam. _____ in. Depth _____ ft.
   c. Drilled X. Finished in Drift _____. In Rock _____.
   Tubular _____. Gravel Packed X.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Gravel	0	244

2. Distance to Nearest:
   Building 20 Ft. — Seepage Tile Field _____
   Cess Pool _____ — Sewer (non Cast iron) _____
   Privy _____ — Sewer (Cast iron) _____
   Septic Tank 78 — Barnyard _____
   Leaching Pit _____ — Manure Pile _____
3. Well furnishes water for human consumption? Yes X No_____
4. Date well completed 7/28/80
5. Permanent Pump Installed? Yes X Date 7/28/80 No____
   Manufacturer Fairbanks Morse Type Sub Location in well
   Capacity 15 gpm. Depth of Setting 120 Ft.
6. Well Top Sealed? Yes X No____ Type Williams Cap
7. Pitless Adapter Installed? Yes X No_____
   Manufacturer Williams Model Number B50aC
   How attached to casing? Locknut
8. Well Disinfected? Yes X No_____
9. Pump and Equipment Disinfected? Yes X No_____
10. Pressure Tank Size 80 gal. Type Well X Trol
    Location Basement
11. Water Sample Submitted? Yes_____ No X

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

1 [redacted] (B)6. PERSONAL PRIVACY

Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5"	Galv. Steel	0	244
	15 lbs per ft		

SHOW LOCATION IN SECTION PLAT
L2#9 Somerset Unit #1 Subs,
NW NW NE

16. Size Hole below casing: 5 in.
17. Static level 80 ft. below casing top which is 1 ft. above ground level. Pumping level 90 ft. when pumping at 10 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top Soil	2	2
Clay	240	242
Limestone	2	244

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [redacted] DATE 11/10/80

#3

IDPH 4.065
1/74 – KNB-1

(B) 6. PERSONAL PRIVACY

Property owner [redacted] Well No.

Drilled by SILVIUS BROS Year 47

Formations passed through	Thickness	Depth of Bottom
clay	295	295
gravel	23	318
shale	150	468
limestone	107	575
glen wood	20	605
sandstone	15	620

[Continue on back if necessary]

Finished in SANDSTONE at 605 to 620 ft.

Cased with 5 inch from 0 to 318 ft.

and inch from to ft.

Size hole below casing 5 inch. Static level from surf. 175 ft.

Tested capacity 9 gal. per min. Temperature °F.

Water lowered to 200 ft. in. in hrs. 15 min.

Length of test 5 hrs. min. Screen

Slot Diam. Length Bottom set at ft.

[Show location in Section Plat]

Township name RILEY Elev.

Description of location 150'S 100'E NW C SW NW NW

Sec. 1 Twp. 43N Rge. 5E

Signed Dan Silvius County McHENRY

Copy for Illinois State Water Survey Index:

T43N R5E

#4

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam. 5 in. Depth 425 ft.
   Curb material _____. Buried Slab: Yes____ No____
   b. Driven _____. Drive Pipe Diam. ____in. Depth ____ft.
   c. Drilled _____. Finished in Drift _____. In Rock ✓.
   Tubular _____. Gravel Packed _____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
bentonite		

2. Distance to Nearest:
   Building _____ Ft. Seepage Tile Field _____
   Cess Pool _____ Sewer (non Cast iron) _____
   Privy _____ Sewer (Cast iron) _____
   Septic Tank 100 Barnyard _____
   Leaching Pit _____ Manure Pile ✓
3. Well furnishes water for human consumption? Yes ✓ No ____
4. Date well completed September 18, 1975
5. Permanent Pump Installed? Yes ___ Date _____ No ✓
   Manufacturer _____ Type _____ Location _____
   Capacity _____ gpm. Depth of Setting _____ Ft.
6. Well Top Sealed? Yes____ No____ Type _____
7. Pitless Adapter Installed? Yes____ No____
   Manufacturer _____ Model Number _____
   How attached to casing? _____
8. Well Disinfected? Yes ✓ No ____
9. Pump and Equipment Disinfected? Yes ✓ No ____
10. Pressure Tank Size____ gal. Type _____
    Location _____
11. Water Sample Submitted? Yes____ No____

REMARKS: We did not finish off this well.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. [redacted]
11.
12.
14.
15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	schedule 40	0	315

SHOW LOCATION IN SECTION PLAT
SE SE SW

16. Size Hole below casing: 5 in.
17. Static level 150 ft. below casing top which is 1 ft. above ground level. Pumping level ____ ft. when pumping at ____ gpm for ____ hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
clay	2	2
gravel	6	8
clay	51	59
gravel	3	62
clay	251	313
white limestone	112	425

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED H. J. Aton & Son Inc BJS DATE 11-24-75

IDPH 4.065
1/74 – KNB-1

#5

Ill. D[illegible] of Public Health
Yellow [illegible] – Well Contractor
Blue C[illegible] – Well Owner

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM [illegible], STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam. 5 in. Depth 126 ft.
   Curb material _____. Buried Slab: Yes_____ No_____
   b. Driven _____. Drive Pipe Diam. _____in. Depth _____ft.
   c. Drilled XX. Finished in Drift XX. In Rock _____.
   Tubular _____. Gravel Packed _____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building 40 Ft. Seepage Tile Field _____
   Cess Pool _____ Sewer (non Cast iron) _____
   Privy _____ Sewer (Cast iron) _____
   Septic Tank 80 Barnyard _____
   Leaching Pit _____ Manure Pile _____
3. Is water from this well to be used for human consumption?
   Yes XX No _____
4. Date well completed Sept. 8, 1971
5. Permanent Pump Installed? Yes XX No _____
   Manufacturer Barnes Type Sub
   Capacity 10 gpm. Depth of setting 63 ft.
6. Well Top Sealed? Yes XX No _____
7. Pitless Adaptor Installed? Yes_____ No_____
8. Well Disinfected? Yes XX No _____
9. Water Sample Submitted? Yes XX No_____

REMARKS:

IDPH 4.065
10/68

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Pro[illegible]
    Add[illegible]
    Dri[illegible]
11. Per[illegible]
12. Wat[illegible]
    at d[illegible]
14. Scre[illegible]
    Len[illegible]

[redacted] (b) 8. PERSONAL PRIVACY

Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	15 per. ft.	0	126

SHOW LOCATION IN SECTION PLAT
100'S 50'E NW/C

16. Size Hole below casing: 5 in.
17. Static level 40 ft. below casing top which is 1 ft. above ground level. Pumping level 63 ft. when pumping at 20 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
fill	0-25	25
Sand & Gravel	25-126	126

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barber DATE 8-5-72

#6

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

FILL IN ALL PERTINENT INFO[illegible]TION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam. 5 in. Depth 252 ft.
   Curb material ____. Buried Slab: Yes____ No ~
   b. Driven ____. Drive Pipe Diam. ~ in. Depth ~ ft.
   c. Drilled ~. Finished in Drift ____. In Rock ~.
   Tubular ~. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
[illegible]	~	22

2. Distance to Nearest:
   Building 15 Ft. Seepage Tile Field [illegible]
   Cess Pool [illegible] Sewer (non Cast iron) [illegible]
   Privy [illegible] Sewer (Cast iron) [illegible]
   Septic Tank [illegible] Barnyard [illegible]
   Leaching Pit [illegible] Manure Pile [illegible]
3. Is water from this well to be used for human consumption?
   Yes ~ No____
4. Date well completed May 3-25
5. Permanent Pump Installed? Yes____ No ~
   Manufacturer ____ Type ____
   Capacity ____ gpm. Depth of setting ____ ft.
6. Well Top Sealed? Yes ~ No____
7. Pitless Adaptor Installed? Yes____ No____
8. Well Disinfected? Yes____ No____
9. Water Sample Submitted? Yes____ No____

REMARKS:

IDPH 4.065
10/68

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property
    Address
    Driller
11. Permit
12. Water f
    at dept
14. Screen
    Length

[redacted] (B)(6) PERSONAL PRIVACY

Elev. ____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
~	ASTM 15 ~	1 ABOV=	185

SHOW LOCATION IN SECTION PLAT
300'S 330'W
NE/4 NENW SE

16. Size Hole below casing: 5 in.
17. Static level 20 ft. below casing top which is 1 ft. above ground level. Pumping level 100 ft. when pumping at 25 gpm for 5 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
CLAY	22	10 2
GRAVEL	3	10 5
CLAY	81	185
LIMESTONE	67	252

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [illegible] DATE May 3-25

#7

INSTRUCTIONS TO DRILLERS

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, BUREAU OF ENVIRONMENTAL HEALTH, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62701. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled X. Finished in Drift X. In Rock____.
   Tubular____. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building 20 Ft. Seepage Tile Field 100 ft.
   Cess Pool____ Sewer (non Cast iron)____
   Privy____ Sewer (Cast iron)____
   Septic Tank 80 Barnyard____
   Leaching Pit____ Manure Pile____
3. Is water from this well to be used for human consumption?
   Yes X No____
4. Date well completed 5-19-77
5. Permanent Pump Instqlled? Yes X No____
   Manufacturer red jacket Type 3/4 HP sub.
   Capacity 10 gpm. Depth of setting ~~100~~ 70 ft.
6. Well Top Sealed? Yes X No____
7. Pitless Adaptor Installed? Yes X No____
8. Well Disinfected? Yes X No____
9. Water Sample Submitted? Yes____ No X

REMARKS:

COUNTY PERMIT #0800

IDPH 4.065
10-72
KNB-1

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property
    Address
    Driller
11. Permit
12. Water f
    at depth
14. Screen:
    Length:

[redacted] (b)6. PERSONAL PRIVACY

Elev.____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	steel ~~xxx~~ 14.	5 0	100

SHOW LOCATION IN SECTION PLAT
NW NWSE

16. Size Hole below casing: 5 in.
17. Static level 45 ft. below casing top which is 63 ft. above ground level. Pumping level 50 ft. when pumping at 10 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
TOP SOIL	10	10
SAND	30	40
CLAY	30	70
SAND	10	80
SAND & GRAVE	10	90
GRAVEL	10	100

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [signature] DATE 8-8-77

#8

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug ____. Bored ____. Hole Diam. 5 in. Depth 135 ft.
   Curb material ____. Buried Slab: Yes ____ No ____
   b. Driven ____. Drive Pipe Diam. ____ in. Depth ____ ft.
   c. Drilled X. Finished in Drift ____. In Rock ____.
   Tubular ____. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building ____ Ft. Seepage Tile Field ____
   Cess Pool ____ Sewer (non Cast iron) ____
   Privy ____ Sewer (Cast iron) ____
   Septic Tank ____ Barnyard ____
   Leaching Pit ____ Manure Pile ____
3. Well furnishes water for human consumption? Yes X No ____
4. Date well completed 4/27/77
5. Permanent Pump Installed? Yes X Date ____ No ____
   Manufacturer Aermtotor Type sub. Location ____
   Capacity 8 gpm. Depth of Setting 110 Ft.
6. Well Top Sealed? Yes X No ____ Type watertite
7. Pitless Adapter Installed? Yes X No ____
   Manufacturer Baker-monitor Model Number snappy
   How attached to casing? compression
8. Well Disinfected? Yes X No ____
9. Pump and Equipment Disinfected? Yes X No ____
10. Pressure Tank Size 60 gal. Type Medalist
    Location ____
11. Water Sample Submitted? Yes ____ No X

REMARKS:

IDPH 4.065
1/74 – KNB-1

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Mr. Gene Meyer Well No. ____
    Address 6105 Meyer Rd. Marengo, Ill.
    Driller William M. Boetsch License No. 92-436
11. Permit No. ____ Date 4/28/77
12. Water from Limestone Formation 13. County McHenry
    at depth 118 to 135 ft. Sec. 26 - SE
    14. Screen: Diam. ____ in. Twp. 44N
    Length: ____ ft. Slot ____ Rge. 5E
    Elev. ____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
1	PVC	1	118

SHOW LOCATION IN SECTION PLAT
150'N, 100'E SW/c

16. Size Hole below casing: 5 in.
17. Static level 10 ft. below casing top which is 1 ft. above ground level. Pumping level 110. when pumping at 8 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top soil	2	2
Boulders and gravel	87	109
Broken rock and shale	9	118
Limestone, shale and water	17	135

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED William Boetsch DATE 4/28/77

#9

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

GEOLOGICAL AND WATER SURVEYS WELL RECORD

[redacted] (b) 6. PERSONAL PRIVACY

1. Type of Well
   a. Dug____. Bored____. Hole Diam. 5 in. Depth 175 ft.
   Curb material ____. Buried Slab: Yes____ No____
   b. Driven ____. Drive Pipe Diam. 5 in. Depth 137 ft.
   c. Drilled XX. Finished in Drift ____. In Rock XX.
   Tubular ____. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
–		

2. Distance to Nearest:
   Building 20 Ft. Seepage Tile Field ____
   Cess Pool ____ Sewer (non Cast iron) ____
   Privy ____ Sewer (Cast iron) ____
   Septic Tank 75 Barnyard ____
   Leaching Pit ____ Manure Pile ____
3. Is water from this well to be used for human consumption?
   Yes XX No____
4. Date well completed April 15, 1975
5. Permanent Pump Installed? Yes XX No____
   Manufacturer Layne Type Syph
   Capacity ____ gpm. Depth of setting 87 ft.
6. Well Top Sealed? Yes X (Pitless water tight seal) No____
7. Pitless Adaptor Installed? Yes XX (Well attached to casing) No Layne-Bert
8. Well Disinfected? Yes XX No____
9. Water Sample Submitted? Yes XX No____

REMARKS: 202 Well x-tied pressure tank located in basement

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	Black	0	137

SHOW LOCATION IN SECTION PLAT

NE NE NW

16. Size Hole below casing: 5 in.
17. Static level 20 ft. below casing top which is 1 ft. above ground level. Pumping level 84 ft. when pumping at 15 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay	0	40'
Sand	40'	75'
Clay + Gravel	75'	130'
Limestone	130'	175'

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Paul Barker DATE May 1, 1975

IDPH 4.065
10/68

#10

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam. 5 in. Depth 45 ft.
   Curb material ____. Buried Slab: Yes____ No____
   b. Driven ____. Drive Pipe Diam. ____in. Depth ____ft.
   c. Drilled X. Finished in Drift ____. In Rock ____.
   Tubular ____. Gravel Packed X.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Gravel	0	45

2. Distance to Nearest:
   Building 35 Ft. — Seepage Tile Field ____
   Cess Pool ____ — Sewer (non Cast iron) ____
   Privy ____ — Sewer (Cast iron) ____
   Septic Tank 75 — Barnyard ____
   Leaching Pit ____ — Manure Pile ____
3. Well furnishes water for human consumption? Yes X No____
4. Date well completed 12/20/79
5. Permanent Pump Installed? Yes X Date 12/20/79 No____
   Manufacturer Stabilite Type Sub Location In well
   Capacity 10 gpm. Depth of Setting ____ Ft.
6. Well Top Sealed? Yes X No____ Type Williams Cap
7. Pitless Adapter Installed? Yes X No____
   Manufacturer Williams Model Number B50AC
   How attached to casing? Locknut
8. Well Disinfected? Yes X No____
9. Pump and Equipment Disinfected? Yes X No____
10. Pressure Tank Size 20 gal. Type Well X Tank
    Location Basement
11. Water Sample Submitted? Yes____ No X

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Prop
    Addr
    Drill
11. Perm
12. Wate
    at d
14. Scre
    Leng

(b) 6. PERSONAL PRIVACY

Elev. ____

SHOW LOCATION IN SECTION PLAT
SW SE SE

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	Black Steel	0	45
	15 lbs per ft		

16. Size Hole below casing: X in.
17. Static level X ft. below casing top which is 1 ft. above ground level. Pumping level 10 ft. when pumping at 10 gpm for X hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top Soil	1	1
Sand & Gravel	42	43
Gravel	2	45

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [redacted] DATE 2/11/80

IDPH 4.065
1/74 – KNB-1
(59671 – 12½M Sets – 6-74)

#11